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LIMITED CLOSURE SUMMARY REPORT FOR FUEL DEPOT TANKS 99, 100 AND 101 NS  
MAYPORT FL  
6/1/2000  
ENVIRONMENTAL SCIENCE ASSOCIATES

**LIMITED CLOSURE SUMMARY REPORT**

**Mayport Naval Station Fuel Depot  
Tanks # 99, 100, 101  
Mayport Naval Station, Duval County, Florida  
Facility ID # 8626008**

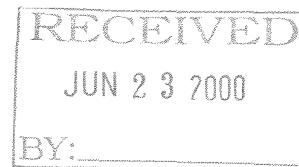
*Prepared for:*

Environmental Recovery, Inc.  
251 Levy Road  
Atlantic Beach, Florida 32233

*Prepared by:*

Environmental Science Associates, Inc.  
35 Jefferson Avenue  
Ponte Vedra, Florida 32802  
CompQAP #970173

June 2000



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# Department of Environmental Protection

Twin Towers Office Building • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

DEP Form 62-761-900(8)  
Form Title: Limited Closure  
Summary Report  
Effective Date: 7/13/98

## Limited Closure Summary Report

This form is required for facilities that have sites with documented contamination requiring a site assessment in accordance with Chapter 62-770, F.A.C. This includes those facilities that are eligible for the Early Detection Incentive Program (EDI), the Florida Petroleum Liability and Restoration Insurance Program (FPLRIP), and the Petroleum Cleanup Participation Program (PCPP), pursuant to Sections 376.3071 and 376.3072, F.S. Documentation of procedures followed, and results obtained during closure shall be reported in this form, along with any attachments. This form shall be submitted to the County within 60 days of completion of the closure in accordance with Section A of the "Storage Tank System Closure Assessment Requirements."

Complete All Applicable Blanks. Please Print or Type

### General Information

Date <u>4/25/00</u>	FDEP Facility ID Number <u>8626008</u>	County <u>Dunn</u>
Facility Name <u>US Navy - Mayport Naval Station</u>	Facility Telephone #: ( ) _____	
Facility Address:		
Owner or Operator Name: <u>US NAVY</u>	Owner/Operator phone #: ( ) _____	
Mailing Address:		

### Storage Tank System Closure Information

1. Were the storage tanks(s): (Check one or both)

Aboveground

Underground

*Tanks #99, 100, 101 - Fuel dep't*

2. General System Information

Types of Products Stored: only wastewater

Number of Tanks Closed 3

Age(s) of Tanks 45 years

3. Was the Limited Closure Summary Report Performed as a Result of: (check one or more)

<input type="radio"/> Tank Systems Removal? <u>✓</u>	<input type="radio"/> Spill Containment Installation?	<input type="radio"/> Change in Storage to a Non-Regulated Substance?
<input type="radio"/> Tank Systems Closed in Place?	<input type="radio"/> Dispenser Liners Installation?	<input type="radio"/> Release Prevention Barrier Installation?
<input type="radio"/> Piping Sump Installation?	<input type="radio"/> Secondary Containment Installation?	<input type="radio"/> Other? (please explain)

4. Please Check Yes or No to the following:

a. Was there previously reported contamination discovered on site? If yes, was	<input checked="" type="radio"/> Yes	<input type="radio"/> No
1. A Discharge Report Form submitted to the County?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
2. An investigation performed in accordance with Rule 62-761.820, F.A.C.?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
b. Is the depth to groundwater less than 20 feet?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
c. Are there monitoring wells on site? If yes, were they	<input checked="" type="radio"/> Yes	<input type="radio"/> No
1. Groundwater monitoring wells?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
2. Vapor monitoring wells?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
3. Used for closure assessment sampling?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
4. Properly closed?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
5. Retained for site assessment purposes?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
d. If tanks were replaced, were contaminated soils returned to the tank excavation?	<input type="radio"/> Yes	<input checked="" type="radio"/> No

Signature of owner or operator

*Richard Morarity*  
Signature of person performing  
Limited Closure Assessment

*Richard Morarity*  
Name of person performing  
Limited Closure Assessment

(date) 4/25/00

(date) 4/25/00

Affiliation ESA

Printed on recycled paper.

## **LIMITED CLOSURE SUMMARY REPORT**

**Mayport Naval Station Fuel Depot  
Tanks # 99, 100, 101  
Mayport Naval Station, Duval County, Florida  
Facility ID # 8626008**

### **Summary of Field Activities**

On May 24 and 25, 2000 Environmental Science Associates, Inc. (ESA) was contracted by Environmental Recovery, Inc. (ERI) of Atlantic Beach, Florida (PSSSC #PC-C050751) to perform limited closure assessment services following the removal of three Waste Oil Underground Storage Tanks (UST's) from the Fuel Depot facility (Facility ID #8626008) located on Mayport Naval Station in Duval County, Florida (refer to Figure 1., Site Location Map). The purpose of the limited closure summary was to evaluate current site conditions in the vicinity of the tanks. Subsurface soil and groundwater contamination has been documented at the site in the past, and remedial activities have been conducted.

The tanks, which were each approximately 210,000-gallons in capacity, were reported to have been installed in 1954, and had been used to store oily wastewater. The limited closure assessment was conducted following the UST removals, and was performed in accordance with the requirements of Chapter 62-761 F.A.C. and the Florida Department of Environmental Protection (FDEP) guidance document "Pollutant Storage Tank Closure Assessment Requirements"(April 1998) for sites with previously documented contamination. The methods and procedures used during the closure assessment were conducted in accordance with the FDEP "Quality Assurance Standard Operating Procedures for Petroleum Storage System Closure Assessments".

As part of the limited closure assessment, total of three groundwater samples were collected from three (3) pre-existing monitoring wells located on the north side of the tank farm. In addition, a total of three groundwater samples were collected from temporary wells installed on site in selected locations, and a total of three soil samples were collected from soil borings conducted on site for. Each of these samples were

Three (3) pre-existing monitor wells (# MW -15S, # MW-03S, and # MW-13S) were sampled on April 24, 2000. Prior to initiating groundwater sample collection activities, the depth to groundwater and total depth of each well was measured using an electronic water level indicator. The depth to groundwater was determined to be approximately 9 to 10 ft below the original surface grade. A total of five well volumes were purged from each well prior to groundwater sample collection. Well purging and groundwater sample collection of the permanently installed wells was conducted using Teflon bailers. The groundwater samples were placed in laboratory prepared sample containers, appropriately preserved, labeled, sealed in zip-lock type bags, placed on wet ice, and hand-delivered under chain-of-custody procedures to the designated laboratory for analysis. The results of the groundwater analysis is summarized in Table 1, and copies of the laboratory reports and chain of custody forms are provided in Attachment A. Copies of the well sampling field logs are

provided in Attachment B. The results of the laboratory analysis of the groundwater samples collected from the existing monitor wells (#MW-15S, MW-03S, and MW-13S) indicated the presence of petroleum contamination, with the concentrations of Naphthalene (140 $\mu$ g/L) and Total Petroleum Hydrocarbons (Fl-PRO, 15mg/L) in excess of the FDEP Groundwater Cleanup Target Levels, as specified by Chapter 62-775, F.A.C., Table I.

On May 25, 2000, confirmatory soil samples were collected, and temporary wells were installed and sampled in the vicinity of Tanks # 100 and 101.

A total of three (3) confirmatory soil samples were collected from soil borings conducted in proximity to the former tank locations, as follows:

- Confirmatory Soil Sample #CS-1 was collected from the south side of Tank #100. Based on the lack of apparent indications of the presence of soil contamination, the sample was collected at a depth of approximately 8.0 ft below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tank 100.
- Confirmatory Soil Sample #CS-2 was collected from the south side of Tank #101. Based on the lack of apparent indications of soil contamination, the sample was collected at a depth of approximately 8.0 ft below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tank 101.
- Confirmatory Soil Sample #CS-3 was collected from the midpoint between the location of Tank #100 and 101. Based on the lack of apparent indications of soil contamination, The sample was collected at a depth of approximately 8.0 below the original surface grade, which was just above the level of groundwater saturation, and below the bottom of Tanks #100 and 101.

Each of these samples were collected using a stainless steel hand auger and Encore® brand samplers. Sampling equipment was decontaminated between sampling locations to prevent the possibility of cross-contamination. The samples were placed into pre-cleaned, laboratory supplied sample containers, appropriately labeled, sealed in zip-lock type bags and placed on wet ice for transport, and hand-delivered to a FDEP-approved laboratory (ENCO Laboratories, Jacksonville) for analysis by the following methods:

EPA Method 8260	Volatile Organic Compounds
EPA Method 8270	Extractable Organic Compounds
Fla-PRO	Total Petroleum Hydrocarbons
RCRA Metals	As, Ba, Cd, Cr, Pb, Hg, Ag, Se

The results of the laboratory analysis of the soil samples were below laboratory detection limits for all chemicals of concern, with the exception of Arsenic, which was detected in soil samples #CS-1 and CS-2 at concentrations of 1.2 mg/Kg and 1.5 mg/Kg, respectively, as well as Chromium

and Lead, which were detected in soil sample #CS-1 at concentrations of 1.0 mg/Kg and 4.4 mg/Kg, respectively. The results of the soil analysis are summarized in Table 2, and soil sampling locations are illustrated in Figure 3.

Following confirmatory soil sample collection, each of the three (3) soil borings were advanced below the top of the water table and temporary monitor wells were installed and sampled. Each of the temporary wells (TMW-1, TMW-2 and TMW-3) were constructed of 2-inch PVC with 5 ft of 0.01.-inch slotted well screen, and was installed such that the well screen intercepted the top of the water table, which was encountered at a depth of approximately 9 ft below surface grade, and the annular space around the well screen was filled with clean 6/20 grade sand pack. Prior to sample collection, each temporary well was purged a total of five (5) standing volumes using a portable peristaltic pump. Groundwater samples were collected from each temporary well using a Teflon bailer. Sample containers, which had been provided by the designated laboratory, were appropriately labeled, preserved, sealed in zip-lock type bags, placed on wet ice, and hand-delivered, under standard chain of custody procedures, to an FDEP-approved environmental laboratory (ENCO Laboratories, Jacksonville) for analysis, as follows:

EPA Method 8260	Volatile Organic Compounds
EPA Method 8270	Extractable Organic Compounds
Fla-PRO	Total Petroleum Hydrocarbons
RCRA Metals	As, Ba, Cd, Cr, Pb, Hg, Ag, Se

The results of the laboratory analysis of the groundwater samples collected from temporary monitor wells # TMW-1, TMW-2, and TMW-3 are summarized in Table 3, and temporary well locations are illustrated in Figure 2. The results of the laboratory analysis of the groundwater samples collected from the temporary monitor wells indicated concentrations of petroleum hydrocarbons, including present in each of the wells, with the concentration of Naphthalene detected in TMW-2 (120 $\mu$ g/L) and the concentration of Lead detected in TMW-1 (0.074mg/L) in excess of the FDEP Groundwater Cleanup Target Levels, as specified by Chapter 62-775, F.A.C., Table I. Copies of the laboratory report of the groundwater analysis are provided in Attachment A, and the temporary well locations are illustrated in Figure 2.

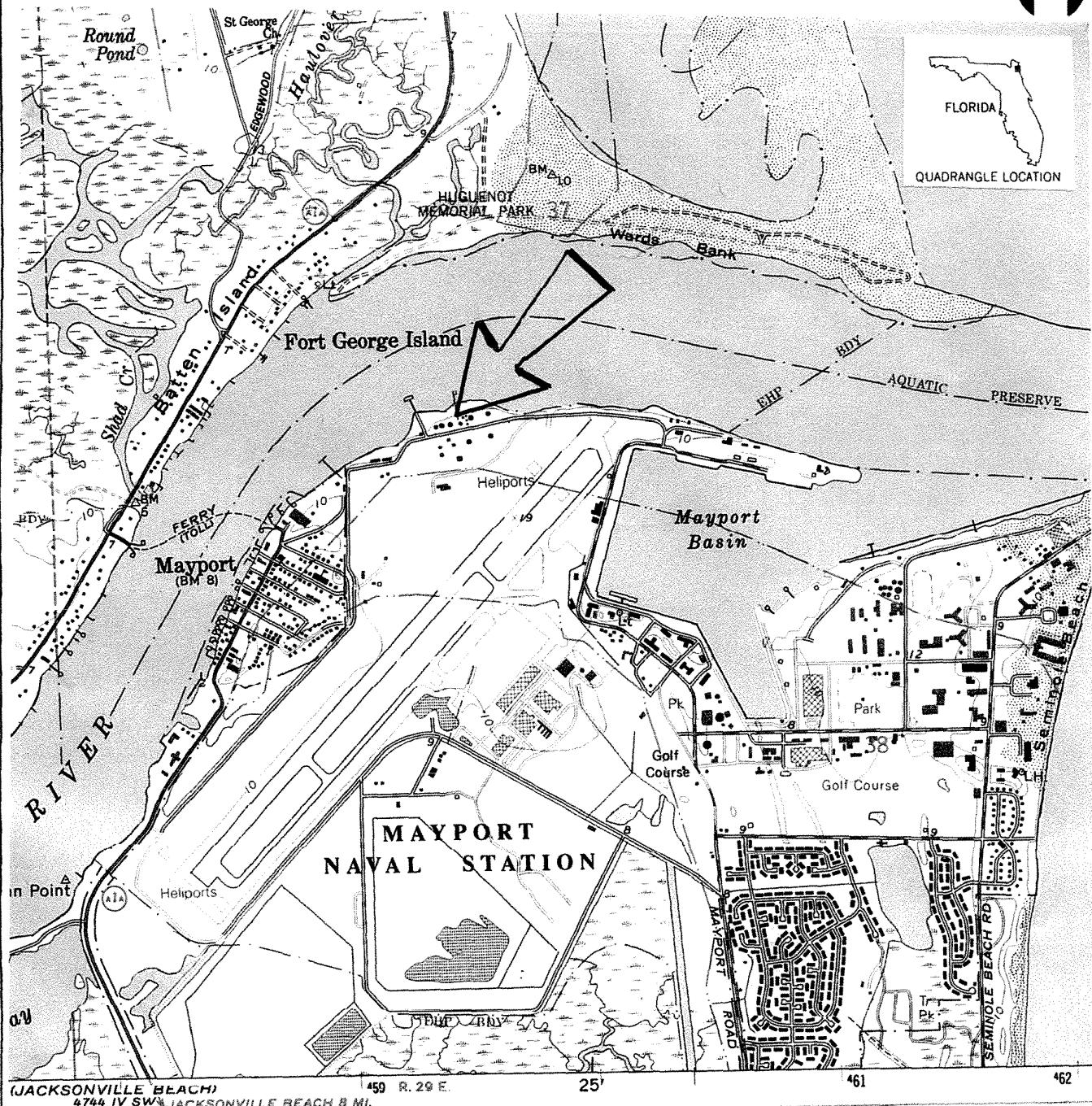
Copies of the laboratory reports of the soil and groundwater analysis are provided as Attachment A. Also included in the limited closure summary report is a site location map, a site sketch indicating soil and groundwater sampling locations relative to the former tank locations, as well as the results of the laboratory analysis in table form.

Respectfully Submitted,  
Environmental Science Associates, Inc.

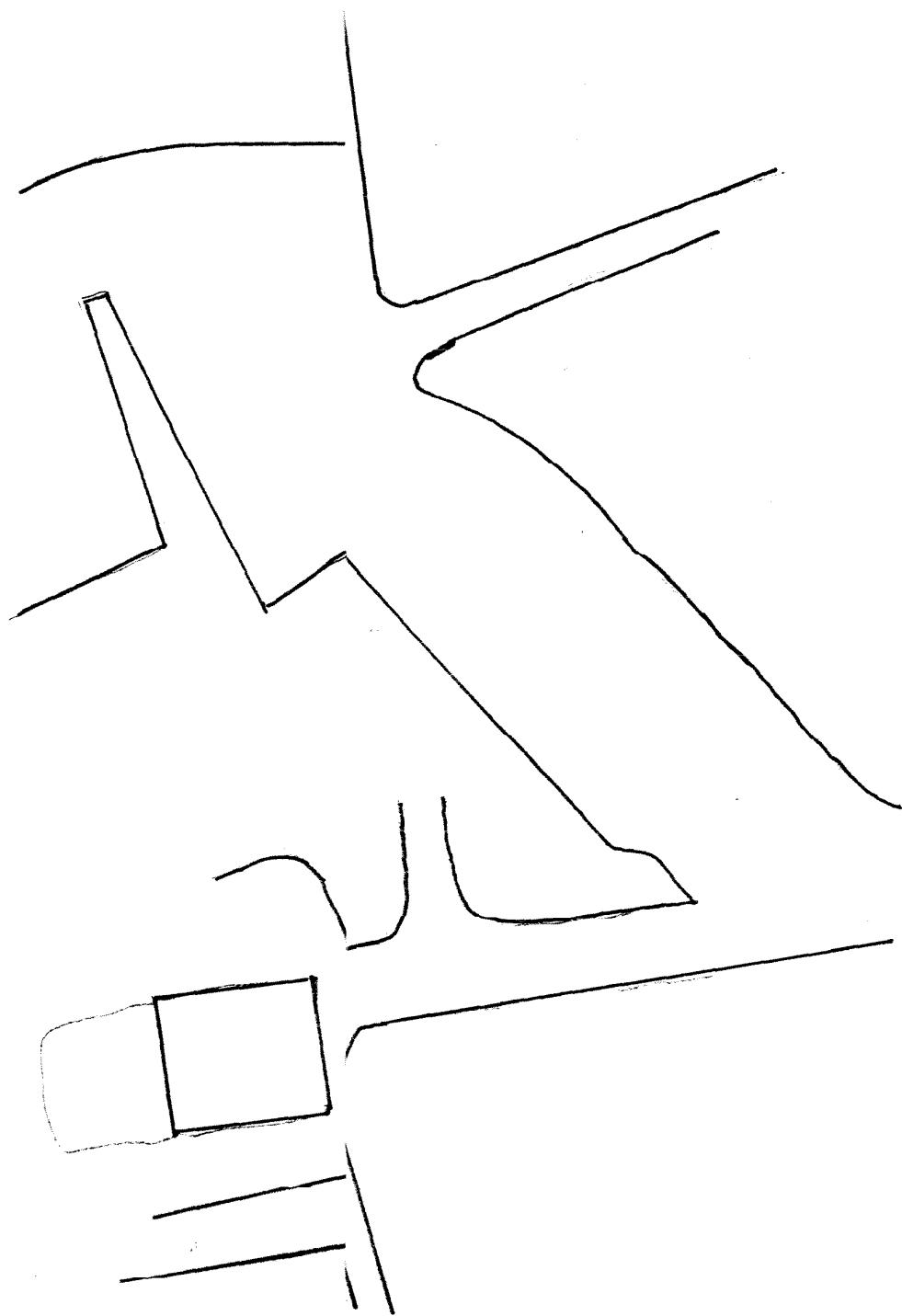
Richard Moriarty  
Environmental Scientist



QUADRANGLE LOCATION

Environmental  
Science  
Associates, Inc.**Site Location Map  
Limited Closure Summary, Tanks #99, 100, and 101**Mayport Naval Station Fuel Depot  
Mayport Naval Station, Duval County, Florida; Facility ID #8626008**FIGURE  
1  
PROJECT NO.**

N



**Environmenta  
Science  
Associates, Inc.**

	INITIAL	DATE
DRAWN BY:		
REVIEWED BY:		
PROJECT MANAGER:		

FIGURE  
**2**  
PROJECT NO.

Table 1.  
 Summary of Laboratory Analysis  
 Groundwater Sampling - Monitor Wells # MW-15S, MW-03S, and MW-13S  
 Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101  
 Mayport Naval Station, Duval County, Florida

Parameter	Monitor Well ID #			Groundwater Cleanup Target Levels*
	MW-15S	MW-03S	MW-13S	
<b>Volatile Organic Compounds:</b>				
(EPA Method 8260)				
Isopropylbenzene	2.6 $\mu$ g/L	BDL	BDL	N/A
1,2,3-Trichlorobenzene	1.8 $\mu$ g/L	BDL	BDL	70 $\mu$ g/L
N-Propylbenzene	3.3 $\mu$ g/L	BDL	BDL	N/A
Tert-Butylbenzene	2.7 $\mu$ g/L	BDL	BDL	N/A
S-Butylbenzene	5.6 $\mu$ g/L	BDL	BDL	N/A
P-Isopropyloluene	3.7 $\mu$ g/L	BDL	BDL	N/A
N-Butylbenzene	6.8 $\mu$ g/L	BDL	BDL	N/A
Naphthalene	140 $\mu$ g/L	9.2 $\mu$ g/L	4.8 $\mu$ g/L	20 $\mu$ g/L
All other 8260 Compounds	BDL	BDL	BDL	N/A
<b>Semi-Volatile Organic Compounds:</b>				
(EPA Method 8270)				
Bis(2-ethylhexylphthalate	14 $\mu$ g/L	BDL	BDL	N/A
Flourene	17 $\mu$ g/L	BDL	BDL	280 $\mu$ g/L
1-Methylnaphthalene	100 $\mu$ g/L	BDL	BDL	20 $\mu$ g/L
2-Methylnaphthalene	90 $\mu$ g/L	BDL	BDL	20 $\mu$ g/L
Naphthalene	48 $\mu$ g/L	BDL	4.8 $\mu$ g/L	20 $\mu$ g/L
Phenanthrene	22 $\mu$ g/L	BDL	BDL	210 $\mu$ g/L
All other 8270 Compounds	BDL	BDL	BDL	N/A
<b>FLA PRO:</b>	<b>15mg/L</b>	BDL	BDL	<b>5mg/L</b>
<b>Total RCRA Metals:</b>				
Arsenic	BDL	0.012mg/L	0.011mg/L	50 $\mu$ g/L
Barium	BDL	BDL	BDL	2000 $\mu$ g/L
Cadmium	BDL	BDL	0.002mg/L	5 $\mu$ g/L
Chromium	BDL	BDL	0.031mg/L	100 $\mu$ g/L
Lead	BDL	BDL	0.009mg/L	15 $\mu$ g/L
Mercury	0.00022mg/L	BDL	BDL	2 $\mu$ g/L
Silver	BDL	BDL	BDL	50 $\mu$ g/L
Selenium	BDL	BDL	BDL	50 $\mu$ g/L

BDL = Below Detection Limits; N/A = Not Applicable

\*Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels

Table 2.  
 Summary of Laboratory Analysis  
 Confirmatory Soil Sampling  
 Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101  
 Mayport Naval Station, Duval County, Florida

Parameter	Confirmatory Soil Sample ID			FDEP Soil Cleanup Target Levels*
	CS-1	CS-2	CS-3	
<b>Volatile Organic Compounds:</b>				
(EPA Method 8260)				
All 8260 Compounds	BDL	BDL	BDL	N/A
<b>Semi-Volatile Organic Compounds:</b>				
(EPA Method 8270)				
All 8270 Compounds	BDL	BDL	BDL	N/A
<b>FLA PRO:</b>				
	BDL	BDL	BDL	340mg/Kg 340mg/Kg
<b>Total RCRA Metals:</b>				
Arsenic	1.0mg/Kg	1.5mg/Kg	BDL	3.7mg/Kg 29mg/Kg
Barium	BDL	BDL	BDL	87000mg/Kg TCLP
Cadmium	BDL	BDL	BDL	1300mg/Kg 8mg/Kg
Chromium	1.0mg/Kg	BDL	BDL	420mg/Kg 38mg/Kg
Lead	4.0mg/Kg	BDL	BDL	920mg/Kg TCLP
Mercury	BDL	BDL	BDL	28mg/Kg TCLP
Silver	BDL	BDL	BDL	9100mg/Kg TCLP
Selenium	BDL	BDL	BDL	10000mg/Kg TCLP

BDL = Below Detection Limits; N/A = Not Applicable

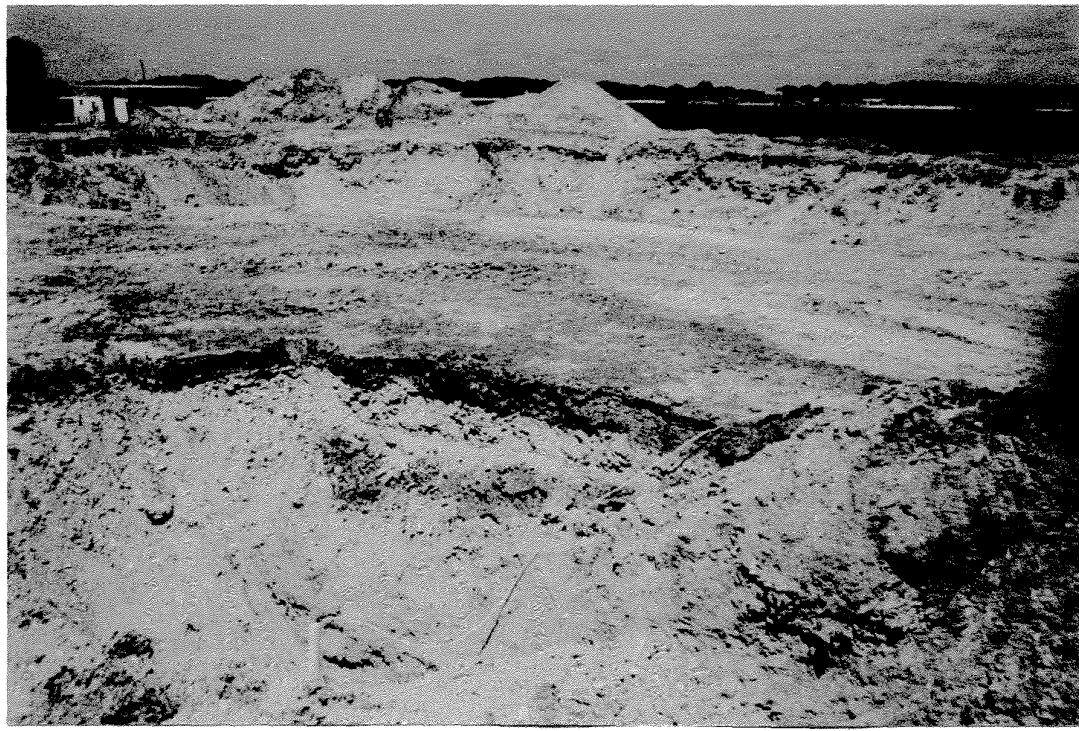
\*Soil Cleanup Target Levels as per 62-775 F.A.C., Table II, Direct Exposure, Industrial Use Assumption/Leachability

**Table 3.**  
**Summary of Laboratory Analysis**  
**Groundwater Sampling - Temporary Monitor Wells #TMW-1, TMW-2, and TMW-3**  
**Mayport Naval Station Fuel Depot, Tanks # 99, 100, and 101**  
**Mayport Naval Station, Duval County, Florida**

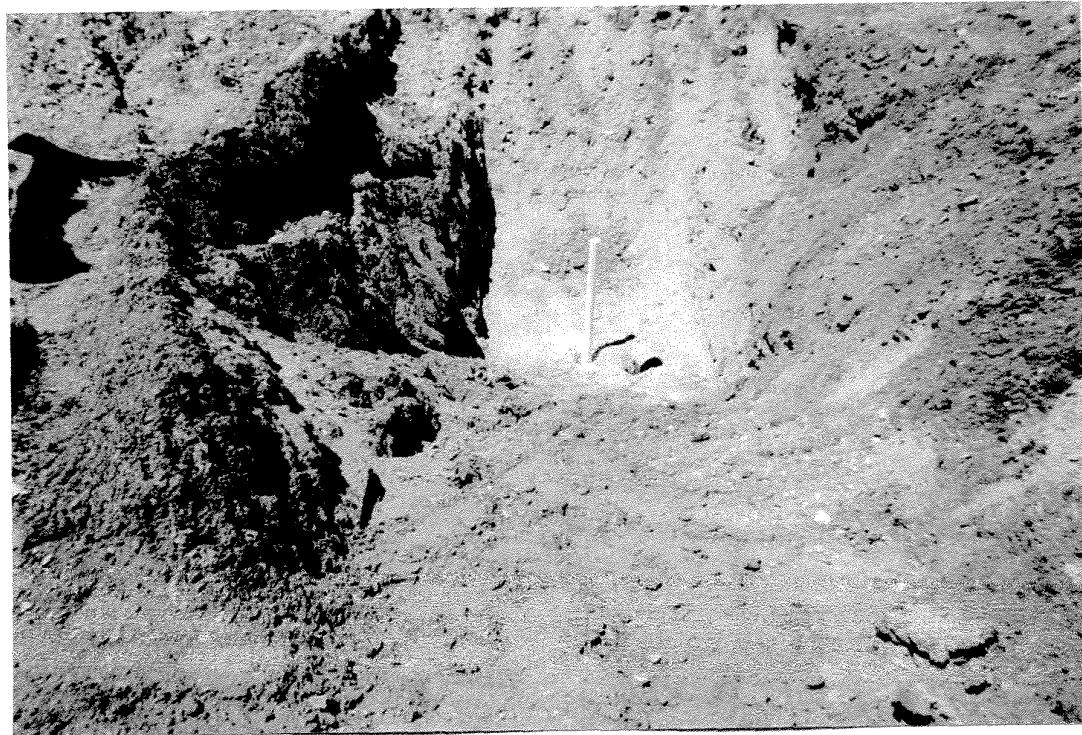
Parameter	Monitor Well ID #			Groundwater Cleanup Target Levels*	
	TMW-1	TMW-2	TMW-3		
<b>Volatile Organic Compounds:</b>					
(EPA Method 8260)					
Isopropylbenzene	22 $\mu\text{g}/\text{L}$	13 $\mu\text{g}/\text{L}$	BDL	N/A	
MTBE	BDL	28 $\mu\text{g}/\text{L}$	BDL	70 $\mu\text{g}/\text{L}$	
N-Propylbenzene	44 $\mu\text{g}/\text{L}$	25 $\mu\text{g}/\text{L}$	BDL	N/A	
Tert-Butylbenzene	BDL	2.6 $\mu\text{g}/\text{L}$	BDL	N/A	
S-Butylbenzene	BDL	15 $\mu\text{g}/\text{L}$	BDL	N/A	
P-Isopropyltoluene	BDL	BDL	BDL	N/A	
N-Butylbenzene	BDL	10 $\mu\text{g}/\text{L}$	BDL	N/A	
Naphthalene	BDL	120 $\mu\text{g}/\text{L}$	8.5 $\mu\text{g}/\text{L}$	20 $\mu\text{g}/\text{L}$	
All other 8260 Compounds	BDL	BDL	BDL	N/A	
<b>Semi-Volatile Organic Compounds:</b>					
(EPA Method 8270)					
1-Methylnaphthalene	BDL	46 $\mu\text{g}/\text{L}$	BDL	20 $\mu\text{g}/\text{L}$	
2-Methylnaphthalene	BDL	45 $\mu\text{g}/\text{L}$	BDL	20 $\mu\text{g}/\text{L}$	
Naphthalene	BDL	42 $\mu\text{g}/\text{L}$	BDL	20 $\mu\text{g}/\text{L}$	
All other 8270 Compounds	BDL	BDL	BDL	N/A	
<b>FLA PRO:</b>	BDL	BDL	BDL	5mg/L	
<b>Total RCRA Metals:</b>					
Arsenic	BDL	BDL	BDL	50 $\mu\text{g}/\text{L}$	
Barium	BDL	BDL	BDL	2000 $\mu\text{g}/\text{L}$	
Cadmium	BDL	BDL	0.001mg/L	5 $\mu\text{g}/\text{L}$	
Chromium	BDL	BDL	BDL	100 $\mu\text{g}/\text{L}$	
Lead	0.074mg/L	BDL	BDL	15 $\mu\text{g}/\text{L}$	
Mercury	BDL	BDL	BDL	2 $\mu\text{g}/\text{L}$	
Silver	BDL	BDL	BDL	50 $\mu\text{g}/\text{L}$	
Selenium	BDL	BDL	BDL	50 $\mu\text{g}/\text{L}$	

BDL = Below Detection Limits; N/A = Not Applicable

\*Groundwater Cleanup Target Levels as per 62-775 F.A.C., Table I, Groundwater Cleanup Target Levels



1. Photograph facing generally northwest, overlooking former tank locations.



2. Photograph overlooking typical Temporary Monitor Well (TMW-3)

Photodocumentation: Limited Closure Summary, May 25, 2000

Tanks 99, 100, and 101, Mayport Naval Station Fuel Farm

Mayport Naval Station, Duval County, Florida; Facility ID # 8626008

## **ATTACHMENT A**

**Laboratory Reports**

**Environmental Conservation Laboratories, Inc.**  
4810 Executive Park Court, Suite 211  
Jacksonville, Florida 32216-6069  
904 / 296-3007  
Fax 904 / 296-6210  
[www.encolabs.com](http://www.encolabs.com)



DHRS Certification No. E82277

**CLIENT :** Environmental Recovery  
**ADDRESS:** 251 Levy Road  
Atlantic Beach, FL 32233

**REPORT #** : JAX10968  
**DATE SUBMITTED:** April 25, 2000  
**DATE REPORTED :** May 3, 2000

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**ATTENTION:** Mr. Chuck Nevin

**SAMPLE IDENTIFICATION**

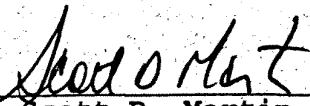
Samples submitted and  
identified by client as:

**PROJECT :** 2007

Mayport Naval Station

- #1 - MW-15S @ 13:45 (04/24/00)
- #2 - MW-03S @ 14:15 (04/24/00)
- #3 - MW-13S @ 14:45 (04/24/00)
- #4 - TMW-1 @ 11:40 (04/25/00)
- #5 - TMW-2 @ 12:20 (04/25/00)
- #6 - TMW-3 @ 12:45 (04/25/00)
- #7 - CS-1 @ 09:15 (04/25/00)
- #8 - CS-2 @ 10:00 (04/25/00)
- #9 - CS-3 @ 10:30 (04/25/00)

**PROJECT MANAGER**

  
\_\_\_\_\_  
Scott D. Martin

ENCO LABORATORIES  
REPORT # : JAX10968  
DATE REPORTED: May 3, 2000  
REFERENCE : 2007  
PROJECT NAME : Mayport Naval Station

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	2.0 U	µg/L
Chloromethane	1.0 U	1.0 U	µg/L
Vinyl Chloride	1.0 U	1.0 U	µg/L
Bromomethane	2.0 U	2.0 U	µg/L
Chloroethane	2.0 U	2.0 U	µg/L
Trichlorofluoromethane	1.0 U	1.0 U	µg/L
1,1-Dichloroethene	1.0 U	1.0 U	µg/L
Acetone	50 U	50 U	µg/L
Carbon Disulfide	50 U	50 U	µg/L
Methylene Chloride	5.0 U	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
Methyl tert-butyl ether	1.0 U	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	1.0 U	µg/L
2,2-Dichloropropane	2.0 U	2.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
2-Butanone	20 U	20 U	µg/L
Chloroform	1.0 U	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	µg/L
Carbon tetrachloride	1.0 U	1.0 U	µg/L
1,1-Dichloropropene	1.0 U	1.0 U	µg/L
Benzene	1.0 U	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	1.0 U	µg/L
Trichloroethene	1.0 U	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	1.0 U	µg/L
Dibromomethane	1.0 U	1.0 U	µg/L
Bromodichloromethane	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

ENCO LABORATORIES  
REPORT #: JAX10968  
DATE REPORTED: May 3, 2000  
REFERENCE : 2007  
PROJECT NAME : Mayport Naval Station

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	6.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
4-Methyl-2-pentanone	20 U	20 U	µg/L
Toluene	1.0 U	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	µg/L
Tetrachloroethene	3.0 U	3.0 U	µg/L
1,3-Dichloropropane	1.0 U	1.0 U	µg/L
2-Hexanone	20 U	20 U	µg/L
Dibromochloromethane	1.0 U	1.0 U	µg/L
1,2-Dibromoethane	1.0 U	1.0 U	µg/L
Chlorobenzene	1.0 U	1.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Ethylbenzene	1.0 U	1.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	2.0 U	µg/L
o-Xylene	1.0 U	1.0 U	µg/L
Styrene	1.0 U	1.0 U	µg/L
Bromoform	1.0 U	1.0 U	µg/L
Isopropylbenzene	2.6 I	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Bromobenzene	1.0 U	1.0 U	µg/L
1,2,3-Trichlorobenzene	1.8	1.0 U	µg/L
n-Propylbenzene	3.3	1.0 U	µg/L
2-Chlorotoluene	1.0 U	1.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	1.0 U	µg/L
4-Chlorotoluene	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
tert-Butylbenzene	2.7	1.0 U	µg/L
1,2,4-Trimethylbenzene	1.0 U	1.0 U	µg/L
s-Butylbenzene	5.6	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
p-Isopropyltoluene	3.7	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
n-Butylbenzene	6.8	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	µg/L
1,2,4-Trichlorobenzene	1.0 U	1.0 U	µg/L
Hexachlorobutadiene	1.0 U	1.0 U	µg/L
Naphthalene	140	9.2	µg/L
1,2,3-Trichloropropane	1.0 U	1.0 U	µg/L
Bromochloromethane	1.0 U	1.0 U	µg/L

<u>Surrogate:</u>	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	93	88	38-143
D8-Toluene	92	100	78-126
Bromofluorobenzene	98	104	72-132
Date Analyzed	05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 -  
SEMIVOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	14	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMOVOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Fluoranthene	10 U	10 U	µg/L
Fluorene	17	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	100	10 U	µg/L
2-Methylnaphthalene	90	10 U	µg/L
Naphthalene	48	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	22	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
Benzyl Alcohol	10 U	10 U	µg/L
Benzoic Acid	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L
3-Nitroaniline	10 U	10 U	µg/L
4-Nitroaniline	10 U	10 U	µg/L
Dibenzofuran	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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**RESULTS OF ANALYSIS**

EPA METHOD 8270 (cont.) -  
SEMIVOLATILE ORGANICS

	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Pyridine	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
2-Methylphenol	10 U	10 U	µg/L
3 & 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	71	56	30-106
2-Fluorobiphenyl	90	75	38-107
Terphenyl -D14	117	126	29-131
Phenol -D5	47	41	12-87
2-Fluorophenol	50	51	19-115
2,4,6-Tribromophenol	#132	118	35-126
Date Extracted	04/28/00	04/28/00	
Date Analyzed	04/28/00	04/28/00	

# = Surrogate recovery was outside of laboratory established limits.

U = Compound was analyzed for but not detected to the level shown.

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<u>TOTAL METALS</u>	<u>METHOD</u>	<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Arsenic	200.7	0.010 U 04/26/00	0.012 I 04/26/00	mg/L
Date Analyzed				
Barium	200.7	0.10 U 04/26/00	0.10 U 04/26/00	mg/L
Date Analyzed				
Cadmium	200.7	0.0010 U 04/26/00	0.0010 U 04/26/00	mg/L
Date Analyzed				
Chromium	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
Date Analyzed				
Lead	200.7	0.0050 U 04/26/00	0.0050 U 04/26/00	mg/L
Date Analyzed				
Mercury	245.1	0.00022 I 04/27/00	0.00020 U 04/27/00	mg/L
Date Analyzed				
Selenium	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
Date Analyzed				
Silver	200.7	0.010 U 04/26/00	0.010 U 04/26/00	mg/L
Date Analyzed				
<b>EPA METHOD FLPRO - PETROL. RESIDUAL ORG.</b>		<u>MW-15S</u>	<u>MW-03S</u>	<u>Units</u>
Hydrocarbons (C8-C40)		15 D1	0.20 U	mg/L
<b>Surrogate:</b>		<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
o-Terphenyl		93	67	65-140
Date Extracted		05/01/00	05/01/00	
Date Analyzed		05/02/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D1 = Analyte value determined from a 1:5 dilution.

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## RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	10 U	µg/L
Chloromethane	1.0 U	5.0 U	µg/L
Vinyl Chloride	1.0 U	5.0 U	µg/L
Bromomethane	2.0 U	10 U	µg/L
Chloroethane	2.0 U	10 U	µg/L
Trichlorofluoromethane	1.0 U	5.0 U	µg/L
1,1-Dichloroethene	1.0 U	5.0 U	µg/L
Acetone	50 U	250 U	µg/L
Carbon Disulfide	50 U	250 U	µg/L
Methylene Chloride	5.0 U	25 U	µg/L
t-1,2-Dichloroethene	1.0 U	5.0 U	µg/L
Methyl tert-butyl ether	1.0 U	5.0 U	µg/L
1,1-Dichloroethane	1.0 U	5.0 U	µg/L
2,2-Dichloropropane	2.0 U	10 U	µg/L
c-1,2-Dichloroethene	1.0 U	5.0 U	µg/L
2-Butanone	20 U	100 U	µg/L
Chloroform	1.0 U	5.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	5.0 U	µg/L
Carbon tetrachloride	1.0 U	5.0 U	µg/L
1,1-Dichloropropene	1.0 U	5.0 U	µg/L
Benzene	1.0 U	5.0 U	µg/L
1,2-Dichloroethane	1.0 U	5.0 U	µg/L
Trichloroethene	1.0 U	5.0 U	µg/L
1,2-Dichloropropane	1.0 U	5.0 U	µg/L
Dibromomethane	1.0 U	5.0 U	µg/L
Bromodichloromethane	1.0 U	5.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

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## RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	30 U	µg/L
c-1,3-Dichloropropene	1.0 U	5.0 U	µg/L
4-Methyl-2-pentanone	20 U	100 U	µg/L
Toluene	1.0 U	5.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	5.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	5.0 U	µg/L
Tetrachloroethene	3.0 U	15 U	µg/L
1,3-Dichloropropane	1.0 U	5.0 U	µg/L
2-Hexanone	20 U	100 U	µg/L
Dibromochloromethane	1.0 U	5.0 U	µg/L
1,2-Dibromoethane	1.0 U	5.0 U	µg/L
Chlorobenzene	1.0 U	5.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	5.0 U	µg/L
Ethylbenzene	1.0 U	5.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	10 U	µg/L
o-Xylene	1.0 U	5.0 U	µg/L
Styrene	1.0 U	5.0 U	µg/L
Bromoform	1.0 U	5.0 U	µg/L
Isopropylbenzene	1.0 U	22	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	5.0 U	µg/L
Bromobenzene	1.0 U	5.0 U	µg/L
1,2,3-Trichlorobenzene	1.0 U	5.0 U	µg/L
n-Propylbenzene	1.0 U	44	µg/L
2-Chlorotoluene	1.0 U	5.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	5.0 U	µg/L
4-Chlorotoluene	1.0 U	5.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

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EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
tert-Butylbenzene	1.0 U	5.0 U	D1 µg/L
1,2,4-Trimethylbenzene	1.0 U	5.0 U	D1 µg/L
s-Butylbenzene	1.0 U	5.0 U	D1 µg/L
1,3-Dichlorobenzene	1.0 U	5.0 U	D1 µg/L
p-Isopropyltoluene	1.0 U	5.0 U	D1 µg/L
1,4-Dichlorobenzene	1.0 U	5.0 U	D1 µg/L
n-Butylbenzene	1.0 U	5.0 U	D1 µg/L
1,2-Dichlorobenzene	1.0 U	5.0 U	D1 µg/L
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	D1 µg/L
1,2,4-Trichlorobenzene	1.0 U	5.0 U	D1 µg/L
Hexachlorobutadiene	1.0 U	5.0 U	D1 µg/L
Naphthalene	4.8	10 U	D1 µg/L
1,2,3-Trichloropropane	1.0 U	5.0 U	D1 µg/L
Bromochloromethane	1.0 U	5.0 U	D1 µg/L

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	94	92	38-143
D8-Toluene	106	94	78-126
Bromofluorobenzene	103	94	72-132
Date Analyzed	05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

D1 = Analyte value determined from a 1:5 dilution.

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EPA METHOD 8270 -  
SEMIVOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMIVOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	10 U	10 U	µg/L
2-Methylnaphthalene	10 U	10 U	µg/L
Naphthalene	10 U	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
Benzyl Alcohol	10 U	10 U	µg/L
Benzoic Acid	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L
3-Nitroaniline	10 U	10 U	µg/L
4-Nitroaniline	10 U	10 U	µg/L
Dibenzofuran	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMIVOLATILE ORGANICS

	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Pyridine	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
2-Methylphenol	10 U	10 U	µg/L
3 & 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	47	49	30-106
2-Fluorobiphenyl	60	62	38-107
Terphenyl -D14	97	100	29-131
Phenol -D5	36	38	12-87
2-Fluorophenol	45	47	19-115
2,4,6-Tribromophenol	78	86	35-126
Date Extracted	04/28/00	04/28/00	
Date Analyzed	04/28/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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<u>TOTAL METALS</u>	<u>METHOD</u>	<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Arsenic	200.7	0.011 I	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Barium	200.7	0.10 U	0.10 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Cadmium	200.7	0.0020 I	0.0010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Chromium	200.7	0.031	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Lead	200.7	0.0090 I	0.074	mg/L
Date Analyzed		04/26/00	04/26/00	
Mercury	245.1	0.00020 U	0.00020 U	mg/L
Date Analyzed		04/27/00	04/27/00	
Selenium	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Silver	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
<u>EPA METHOD FLPRO - PETROL. RESIDUAL ORG.</u>		<u>MW-13S</u>	<u>TMW-1</u>	<u>Units</u>
Hydrocarbons (C8-C40)		0.20 U	0.20 U	mg/L
<u>Surrogate:</u>		<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
o-Terphenyl		70	83	65-140
Date Extracted		05/01/00	05/01/00	
Date Analyzed		05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	2.0 U	µg/L
Chloromethane	1.0 U	1.0 U	µg/L
Vinyl Chloride	1.0 U	1.0 U	µg/L
Bromomethane	2.0 U	2.0 U	µg/L
Chloroethane	2.0 U	2.0 U	µg/L
Trichlorofluoromethane	1.0 U	1.0 U	µg/L
1,1-Dichloroethene	1.0 U	1.0 U	µg/L
Acetone	50 U	50 U	µg/L
Carbon Disulfide	50 U	50 U	µg/L
Methylene Chloride	5.0 U	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
Methyl tert-butyl ether	28	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	1.0 U	µg/L
2,2-Dichloropropane	2.0 U	2.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
2-Butanone	20 U	20 U	µg/L
Chloroform	1.0 U	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	µg/L
Carbon tetrachloride	1.0 U	1.0 U	µg/L
1,1-Dichloropropene	1.0 U	1.0 U	µg/L
Benzene	1.0 U	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	1.0 U	µg/L
Trichloroethene	1.0 U	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	1.0 U	µg/L
Dibromomethane	1.0 U	1.0 U	µg/L
Bromodichloromethane	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS

	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	6.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
4-Methyl-2-pentanone	20 U	20 U	µg/L
Toluene	1.0 U	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	µg/L
Tetrachloroethene	3.0 U	3.0 U	µg/L
1,3-Dichloropropane	1.0 U	1.0 U	µg/L
2-Hexanone	20 U	20 U	µg/L
Dibromochloromethane	1.0 U	1.0 U	µg/L
1,2-Dibromoethane	1.0 U	1.0 U	µg/L
Chlorobenzene	1.0 U	1.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Ethylbenzene	1.0 U	1.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	2.0 U	µg/L
o-Xylene	1.0 U	1.0 U	µg/L
Styrene	1.0 U	1.0 U	µg/L
Bromoform	1.0 U	1.0 U	µg/L
Isopropylbenzene	13	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Bromobenzene	1.0 U	1.0 U	µg/L
1,2,3-Trichlorobenzene	1.0 U	1.0 U	µg/L
n-Propylbenzene	25	1.0 U	µg/L
2-Chlorotoluene	1.0 U	1.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	1.0 U	µg/L
4-Chlorotoluene	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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## RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
tert-Butylbenzene	2.6	1.0 U	µg/L
1,2,4-Trimethylbenzene	1.0 U	1.0 U	µg/L
s-Butylbenzene	15	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
p-Isopropyltoluene	1.0 U	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
n-Butylbenzene	10	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	µg/L
1,2,4-Trichlorobenzene	1.0 U	1.0 U	µg/L
Hexachlorobutadiene	1.0 U	1.0 U	µg/L
Naphthalene	120	8.5	µg/L
1,2,3-Trichloropropane	1.0 U	1.0 U	µg/L
Bromochloromethane	1.0 U	1.0 U	µg/L
 <u>Surrogate:</u>	 <u>% RECOV</u>	 <u>% RECOV</u>	 <u>LIMITS</u>
Dibromofluoromethane	94	88	38-143
D8-Toluene	104	99	78-126
Bromofluorobenzene	102	92	72-132
Date Analyzed	05/01/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 -  
SEMIVOLATILE ORGANICS

	TMW-2	TMW-3	Units
Acenaphthene	10 U	10 U	µg/L
Acenaphthylene	10 U	10 U	µg/L
Anthracene	10 U	10 U	µg/L
Benzidine	10 U	10 U	µg/L
Benzo(a)anthracene	10 U	10 U	µg/L
Benzo(b)fluoranthene	10 U	10 U	µg/L
Benzo(k)fluoranthene	10 U	10 U	µg/L
Benzo(g,h,i)perylene	10 U	10 U	µg/L
Benzo(a)pyrene	10 U	10 U	µg/L
Benzylbutyl phthalate	10 U	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	10 U	µg/L
4-Bromophenylphenyl ether	10 U	10 U	µg/L
2-Chloronaphthalene	10 U	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	10 U	µg/L
Chrysene	10 U	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	10 U	µg/L
1,2-Dichlorobenzene	10 U	10 U	µg/L
1,3-Dichlorobenzene	10 U	10 U	µg/L
1,4-Dichlorobenzene	10 U	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	20 U	µg/L
Diethyl phthalate	10 U	10 U	µg/L
Dimethyl phthalate	10 U	10 U	µg/L
Di-n-butyl phthalate	10 U	10 U	µg/L
Di-n-octyl phthalate	10 U	10 U	µg/L
2,4-Dinitrotoluene	10 U	10 U	µg/L
2,6-Dinitrotoluene	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) -

SEMIVOLATILE ORGANICS

	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
Fluoranthene	10 U	10 U	µg/L
Fluorene	10 U	10 U	µg/L
Hexachlorobenzene	10 U	10 U	µg/L
Hexachlorobutadiene	10 U	10 U	µg/L
Hexachlorocyclopentadiene	10 U	10 U	µg/L
Hexachloroethane	10 U	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	10 U	µg/L
Isophorone	10 U	10 U	µg/L
1-Methylnaphthalene	46	10 U	µg/L
2-Methylnaphthalene	45	10 U	µg/L
Naphthalene	42	10 U	µg/L
Nitrobenzene	10 U	10 U	µg/L
N-Nitrosodimethylamine	10 U	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	10 U	µg/L
N-Nitrosodiphenylamine	10 U	10 U	µg/L
Phenanthrene	10 U	10 U	µg/L
Pyrene	10 U	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	10 U	µg/L
Benzyl Alcohol	10 U	10 U	µg/L
Benzoic Acid	10 U	10 U	µg/L
4-Chloroaniline	10 U	10 U	µg/L
2-Nitroaniline	10 U	10 U	µg/L
3-Nitroaniline	10 U	10 U	µg/L
4-Nitroaniline	10 U	10 U	µg/L
Dibenzofuran	10 U	10 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) -

SEMOVOLATILE ORGANICS

	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
Pyridine	10 U	10 U	µg/L
4-Chloro-3-methylphenol	10 U	10 U	µg/L
2-Chlorophenol	10 U	10 U	µg/L
2,4-Dichlorophenol	10 U	10 U	µg/L
2,4-Dimethylphenol	10 U	10 U	µg/L
2,4-Dinitrophenol	50 U	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	30 U	µg/L
2-Nitrophenol	10 U	10 U	µg/L
4-Nitrophenol	10 U	10 U	µg/L
Pentachlorophenol	10 U	10 U	µg/L
Phenol	10 U	10 U	µg/L
2,4,6-Trichlorophenol	10 U	10 U	µg/L
2-Methylphenol	10 U	10 U	µg/L
3 & 4-Methylphenol	10 U	10 U	µg/L
2,4,5-Trichlorophenol	10 U	10 U	µg/L

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	36	46	30-106
2-Fluorobiphenyl	50	57	38-107
Terphenyl -D14	80	92	29-131
Phenol -D5	27	34	12-87
2-Fluorophenol	32	45	19-115
2,4,6-Tribromophenol	89	80	35-126
Date Extracted	04/28/00	04/28/00	
Date Analyzed	04/28/00	04/29/00	

U = Compound was analyzed for but not detected to the level shown.

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**RESULTS OF ANALYSIS**

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
Arsenic	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Barium	200.7	0.10 U	0.10 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Cadmium	200.7	0.0010 U	0.0010 I	mg/L
Date Analyzed		04/26/00	04/26/00	
Chromium	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Lead	200.7	0.0050 U	0.0050 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Mercury	245.1	0.00020 U	0.00020 U	mg/L
Date Analyzed		04/27/00	04/27/00	
Selenium	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	
Silver	200.7	0.010 U	0.010 U	mg/L
Date Analyzed		04/26/00	04/26/00	

<u>EPA METHOD FLPRO -</u> <u>PETROL. RESIDUAL ORG.</u>	<u>TMW-2</u>	<u>TMW-3</u>	<u>Units</u>
Hydrocarbons (C8-C40)	3.2	0.20 U	mg/L
<u>Surrogate:</u>	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
o-Terphenyl	108	90	65-140
Date Extracted	05/01/00	05/01/00	
Date Analyzed	05/02/00	05/01/00	

U = Compound was analyzed for but not detected to the level shown.  
 I = Analyte detected; value is between the Method Detection Level (MDL)  
 and the Practical Quantitation Level (PQL).

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## RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	CS-1		CS-2	Units
Dichlorodifluoromethane	3.3 U D2		2.9 U D3	µg/Kg
Chloromethane	1.6 U D2		1.5 U D3	µg/Kg
Vinyl Chloride	1.6 U D2		1.5 U D3	µg/Kg
Bromomethane	1.0 U D2		1.0 U D3	µg/Kg
Chloroethane	1.0 U D2		1.0 U D3	µg/Kg
Trichlorofluoromethane	1.0 U D2		1.0 U D3	µg/Kg
1,1-Dichloroethene	1.6 U D2		1.5 U D3	µg/Kg
Acetone	32 U D2		29 U D3	µg/Kg
Carbon Disulfide	32 U D2		29 U D3	µg/Kg
Methylene Chloride	8.0 U D2		7.0 U D3	µg/Kg
t-1,2-Dichloroethene	1.6 U D2		1.5 U D3	µg/Kg
Methyl tert-butyl ether	1.6 U D2		1.5 U D3	µg/Kg
1,1-Dichloroethane	1.6 U D2		1.5 U D3	µg/Kg
2,2-Dichloropropane	4.0 U D2		3.0 U D3	µg/Kg
c-1,2-Dichloroethene	1.6 U D2		1.5 U D3	µg/Kg
2-Butanone	33 U D2		29 U D3	µg/Kg
Chloroform	1.6 U D2		1.5 U D3	µg/Kg
1,1,1-Trichloroethane	1.6 U D2		1.5 U D3	µg/Kg
Carbon tetrachloride	1.6 U D2		1.5 U D3	µg/Kg
1,1-Dichloropropene	1.6 U D2		1.5 U D3	µg/Kg
Benzene	1.6 U D2		1.5 U D3	µg/Kg
1,2-Dichloroethane	1.6 U D2		1.5 U D3	µg/Kg
Trichloroethene	1.6 U D2		1.5 U D3	µg/Kg
1,2-Dichloropropane	1.6 U D2		1.5 U D3	µg/Kg
Dibromomethane	1.6 U D2		1.5 U D3	µg/Kg
Bromodichloromethane	1.6 U D2		1.5 U D3	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

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EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>CS-1</u>		<u>CS-2</u>		<u>Units</u>
2-Chloroethyl vinyl ether	10 U D2		8.0 U D3		µg/Kg
c-1,3-Dichloropropene	1.6 U D2		1.5 U D3		µg/Kg
4-Methyl-2-pentanone	32 U D2		29 U D3		µg/Kg
Toluene	1.6 U D2		1.5 U D3		µg/Kg
t-1,3-Dichloropropene	1.6 U D2		1.5 U D3		µg/Kg
1,1,2-Trichloroethane	1.6 U D2		1.5 U D3		µg/Kg
Tetrachloroethene	5.0 U D2		4.0 U D3		µg/Kg
1,3-Dichloropropane	1.6 U D2		1.5 U D3		µg/Kg
2-Hexanone	32 U D2		29 U D3		µg/Kg
Dibromochloromethane	1.6 U D2		1.5 U D3		µg/Kg
1,2-Dibromoethane	1.6 U D2		1.5 U D3		µg/Kg
Chlorobenzene	1.6 U D2		1.5 U D3		µg/Kg
1,1,1,2-Tetrachloroethane	1.6 U D2		1.5 U D3		µg/Kg
Ethylbenzene	1.6 U D2		1.5 U D3		µg/Kg
m-Xylene & p-Xylene	3.3 U D2		2.9 U D3		µg/Kg
o-Xylene	1.6 U D2		1.5 U D3		µg/Kg
Styrene	1.6 U D2		1.5 U D3		µg/Kg
Bromoform	1.6 U D2		1.5 U D3		µg/Kg
Isopropylbenzene	1.6 U D2		1.5 U D3		µg/Kg
1,1,2,2-Tetrachloroethane	1.6 U D2		1.5 U D3		µg/Kg
Bromobenzene	1.6 U D2		1.5 U D3		µg/Kg
1,2,3-Trichlorobenzene	1.6 U D2		1.5 U D3		µg/Kg
n-Propylbenzene	1.6 U D2		1.5 U D3		µg/Kg
2-Chlorotoluene	1.6 U D2		1.5 U D3		µg/Kg
1,3,5-Trimethylbenzene	1.6 U D2		1.5 U D3		µg/Kg
4-Chlorotoluene	1.6 U D2		1.5 U D3		µg/Kg

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

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## RESULTS OF ANALYSIS

## EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS

	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
tert-Butylbenzene	1.6 U D2	1.5 U D3	µg/Kg
1,2,4-Trimethylbenzene	1.6 U D2	1.5 U D3	µg/Kg
s-Butylbenzene	1.6 U D2	1.5 U D3	µg/Kg
1,3-Dichlorobenzene	1.6 U D2	1.5 U D3	µg/Kg
p-Isopropyltoluene	1.6 U D2	1.5 U D3	µg/Kg
1,4-Dichlorobenzene	1.6 U D2	1.5 U D3	µg/Kg
n-Butylbenzene	1.6 U D2	1.5 U D3	µg/Kg
1,2-Dichlorobenzene	1.6 U D2	1.5 U D3	µg/Kg
1,2-Dibromo-3-chloropropane	1.0 U D2	1.0 U D3	µg/Kg
1,2,4-Trichlorobenzene	1.6 U D2	1.5 U D3	µg/Kg
Hexachlorobutadiene	1.6 U D2	1.5 U D3	µg/Kg
Naphthalene	1.6 U D2	1.5 U D3	µg/Kg
1,2,3-Trichloropropane	1.6 U D2	1.5 U D3	µg/Kg
Bromochloromethane	1.6 U D2	1.5 U D3	µg/Kg

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	89	88	59-143
D8-Toluene	100	93	60-115
Bromofluorobenzene	99	97	55-144
Date Analyzed	04/30/00	04/30/00	

U = Compound was analyzed for but not detected to the level shown.

D2 = Analyte value determined from a 1:1.33 dilution.

D3 = Analyte value determined from a 1:1.35 dilution.

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## RESULTS OF ANALYSIS

EPA METHOD 8270 -  
SEMIVOLATILE ORGANICS

	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
Acenaphthene	400 U	350 U	µg/Kg
Acenaphthylene	400 U	350 U	µg/Kg
Anthracene	400 U	350 U	µg/Kg
Benzidine	400 U	350 U	µg/Kg
Benzo(a)anthracene	400 U	350 U	µg/Kg
Benzo(b)fluoranthene	400 U	350 U	µg/Kg
Benzo(k)fluoranthene	400 U	350 U	µg/Kg
Benzo(g,h,i)perylene	400 U	350 U	µg/Kg
Benzo(a)pyrene	400 U	350 U	µg/Kg
Benzylbutyl phthalate	400 U	350 U	µg/Kg
Bis(2-chloroethoxy)methane	400 U	350 U	µg/Kg
Bis(2-chloroethyl)ether	400 U	350 U	µg/Kg
Bis(2-chloroisopropyl)ether	400 U	350 U	µg/Kg
Bis(2-ethylhexyl)phthalate	400 U	350 U	µg/Kg
4-Bromophenylphenyl ether	400 U	350 U	µg/Kg
2-Chloronaphthalene	400 U	350 U	µg/Kg
4-Chlorophenyl phenyl ether	400 U	350 U	µg/Kg
Chrysene	400 U	350 U	µg/Kg
Dibenzo(a,h)anthracene	400 U	350 U	µg/Kg
1,2-Dichlorobenzene	400 U	350 U	µg/Kg
1,3-Dichlorobenzene	400 U	350 U	µg/Kg
1,4-Dichlorobenzene	400 U	350 U	µg/Kg
3,3'-Dichlorobenzidine	800 U	700 U	µg/Kg
Diethyl phthalate	400 U	350 U	µg/Kg
Dimethyl phthalate	400 U	350 U	µg/Kg
Di-n-butyl phthalate	400 U	350 U	µg/Kg
Di-n-octyl phthalate	400 U	350 U	µg/Kg
2,4 Dinitrotoluene	400 U	350 U	µg/Kg
2,6-Dinitrotoluene	400 U	350 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMIVOLATILE ORGANICS

	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
Fluoranthene	400 U	350 U	µg/Kg
Fluorene	400 U	350 U	µg/Kg
Hexachlorobenzene	400 U	350 U	µg/Kg
Hexachlorobutadiene	400 U	350 U	µg/Kg
Hexachlorocyclopentadiene	400 U	350 U	µg/Kg
Hexachloroethane	400 U	350 U	µg/Kg
Indeno(1,2,3-cd)pyrene	400 U	350 U	µg/Kg
Isophorone	400 U	350 U	µg/Kg
1-Methylnaphthalene	400 U	350 U	µg/Kg
2-Methylnaphthalene	400 U	350 U	µg/Kg
Naphthalene	400 U	350 U	µg/Kg
Nitrobenzene	400 U	350 U	µg/Kg
N-Nitrosodimethylamine	400 U	350 U	µg/Kg
N-Nitrosodi-n-propylamine	400 U	350 U	µg/Kg
N-Nitrosodiphenylamine	400 U	350 U	µg/Kg
Phenanthrene	400 U	350 U	µg/Kg
Pyrene	400 U	350 U	µg/Kg
1,2,4-Trichlorobenzene	400 U	350 U	µg/Kg
Benzyl Alcohol	400 U	350 U	µg/Kg
Benzoic Acid	400 U	350 U	µg/Kg
4-Chloroaniline	400 U	350 U	µg/Kg
2-Nitroaniline	400 U	350 U	µg/Kg
3-Nitroaniline	400 U	350 U	µg/Kg
4-Nitroaniline	400 U	350 U	µg/Kg
Dibenzofuran	400 U	350 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

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### RESULTS OF ANALYSIS

#### EPA METHOD 8270 (cont.) -

#### SEMIVOLATILE ORGANICS

	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
Pyridine	400 U	350 U	µg/Kg
4-Chloro-3-methylphenol	400 U	350 U	µg/Kg
2-Chlorophenol	400 U	350 U	µg/Kg
2,4-Dichlorophenol	400 U	350 U	µg/Kg
2,4-Dimethylphenol	400 U	350 U	µg/Kg
2,4-Dinitrophenol	2000 U	1800 U	µg/Kg
2-Methyl-4,6-dinitrophenol	1200 U	1000 U	µg/Kg
2-Nitrophenol	400 U	350 U	µg/Kg
4-Nitrophenol	400 U	350 U	µg/Kg
Pentachlorophenol	400 U	350 U	µg/Kg
Phenol	400 U	350 U	µg/Kg
2,4,6-Trichlorophenol	400 U	350 U	µg/Kg
2-Methylphenol	400 U	350 U	µg/Kg
3 & 4-Methylphenol	400 U	350 U	µg/Kg
2,4,5-Trichlorophenol	400 U	350 U	µg/Kg

#### Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	64	66	35-112
2-Fluorobiphenyl	72	80	42-111
Terphenyl -D14	97	106	40-124
Phenol -D5	69	81	20-120
2-Fluorophenol	68	81	29-130
2,4,6-Tribromophenol	66	71	35-126
Date Extracted	04/27/00	04/27/00	
Date Analyzed	04/27/00	04/27/00	

#### MISCELLANEOUS

	<u>METHOD</u>	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
Percent Solids	SM2540G	82	94	%
Date Analyzed		04/28/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

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**RESULTS OF ANALYSIS**

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
Arsenic	6010	1.0 I	1.5 I	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Barium	6010	24 U	21 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Cadmium	6010	1.0 U	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Chromium	6010	1.0	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Lead	6010	4.4	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Mercury	7471	0.010 U	0.010 U	mg/Kg
Date Analyzed		04/28/00	04/28/00	
Selenium	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Silver	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
<b>EPA METHOD FLPRO - PETROL. RESIDUAL ORG.</b>				
Hydrocarbons (C8-C40)				
<u>Surrogate:</u>		<u>CS-1</u>	<u>CS-2</u>	<u>Units</u>
o-Terphenyl		8.0 U	7.0 U	mg/Kg
Date Extracted				
Date Analyzed				
<u>% RECOV</u>		<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
		62	68	51-148
		04/28/00	04/28/00	
		04/28/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	µg/L
Chloromethane	1.0 U	µg/L
Vinyl Chloride	1.0 U	µg/L
Bromomethane	2.0 U	µg/L
Chloroethane	2.0 U	µg/L
Trichlorofluoromethane	1.0 U	µg/L
1,1-Dichloroethene	1.0 U	µg/L
Acetone	50 U	µg/L
Carbon Disulfide	50 U	µg/L
Methylene Chloride	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	µg/L
Methyl tert-butyl ether	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	µg/L
2,2-Dichloropropane	2.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	µg/L
2-Butanone	20 U	µg/L
Chloroform	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	µg/L
Carbon tetrachloride	1.0 U	µg/L
1,1-Dichloropropene	1.0 U	µg/L
Benzene	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	µg/L
Trichloroethene	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	µg/L
Dibromomethane	1.0 U	µg/L
Bromodichloromethane	1.0 U	µg/L

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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## RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	µg/L
4-Methyl-2-pentanone	20 U	µg/L
Toluene	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	µg/L
Tetrachloroethene	3.0 U	µg/L
1,3-Dichloropropane	1.0 U	µg/L
2-Hexanone	20 U	µg/L
Dibromochloromethane	1.0 U	µg/L
1,2-Dibromoethane	1.0 U	µg/L
Chlorobenzene	1.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	µg/L
Ethylbenzene	1.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	µg/L
o-Xylene	1.0 U	µg/L
Styrene	1.0 U	µg/L
Bromoform	1.0 U	µg/L
Isopropylbenzene	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	µg/L
Bromobenzene	1.0 U	µg/L
1,2,3-Trichlorobenzene	1.0 U	µg/L
n-Propylbenzene	1.0 U	µg/L
2-Chlorotoluene	1.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	µg/L
4-Chlorotoluene	1.0 U	µg/L

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

tert-Butylbenzene  
1,2,4-Trimethylbenzene  
s-Butylbenzene  
1,3-Dichlorobenzene  
p-Isopropyltoluene  
1,4-Dichlorobenzene  
n-Butylbenzene  
1,2-Dichlorobenzene  
1,2-Dibromo-3-chloropropane  
1,2,4-Trichlorobenzene  
Hexachlorobutadiene  
Naphthalene  
1,2,3-Trichloropropane  
Bromochloromethane

	<u>LAB BLANK</u>	<u>Units</u>
tert-Butylbenzene	1.0 U	µg/L
1,2,4-Trimethylbenzene	1.0 U	µg/L
s-Butylbenzene	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	µg/L
p-Isopropyltoluene	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	µg/L
n-Butylbenzene	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	µg/L
1,2-Dibromo-3-chloropropane	1.0 U	µg/L
1,2,4-Trichlorobenzene	1.0 U	µg/L
Hexachlorobutadiene	1.0 U	µg/L
Naphthalene	2.0 U	µg/L
1,2,3-Trichloropropane	1.0 U	µg/L
Bromochloromethane	1.0 U	µg/L

Surrogate:

Dibromofluoromethane  
D8-Toluene  
Bromofluorobenzene  
Date Analyzed

	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	90	38-143
D8-Toluene	93	78-126
Bromofluorobenzene	100	72-132
Date Analyzed	04/29/00	

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	CS-3	LAB BLANK	Units
Dichlorodifluoromethane	4.7 U D4	2.0 U	µg/Kg
Chloromethane	2.4 U D4	1.0 U	µg/Kg
Vinyl Chloride	2.4 U D4	1.0 U	µg/Kg
Bromomethane	2.0 U D4	1.0 U	µg/Kg
Chloroethane	2.0 U D4	1.0 U	µg/Kg
Trichlorofluoromethane	2.0 U D4	1.0 U	µg/Kg
1,1-Dichloroethene	2.4 U D4	1.0 U	µg/Kg
Acetone	47 U D4	24	µg/Kg
Carbon Disulfide	47 U D4	20 U	µg/Kg
Methylene Chloride	11 U D4	8.0 I	µg/Kg
t-1,2-Dichloroethene	2.4 U D4	1.0 U	µg/Kg
Methyl tert-butyl ether	2.4 U D4	1.0 U	µg/Kg
1,1-Dichloroethane	2.4 U D4	1.0 U	µg/Kg
2,2-Dichloropropane	5.0 U D4	2.0 U	µg/Kg
c-1,2-Dichloroethene	2.4 U D4	1.0 U	µg/Kg
2-Butanone	47 U D4	20 U	µg/Kg
Chloroform	2.4 U D4	1.0 U	µg/Kg
1,1,1-Trichloroethane	2.4 U D4	1.0 U	µg/Kg
Carbon tetrachloride	2.4 U D4	1.0 U	µg/Kg
1,1-Dichloropropene	2.4 U D4	1.0 U	µg/Kg
Benzene	2.4 U D4	1.0 U	µg/Kg
1,2-Dichloroethane	2.4 U D4	1.0 U	µg/Kg
Trichloroethene	2.4 U D4	1.0 U	µg/Kg
1,2-Dichloropropane	2.4 U D4	1.0 U	µg/Kg
Dibromomethane	2.4 U D4	1.0 U	µg/Kg
Bromodichloromethane	2.4 U D4	1.0 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

I = Analyte detected; value is between the Method Detection Level (MDL) and the Practical Quantitation Level (PQL).

D4 = Analyte value determined from a 1:2.29 dilution.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	CS-3	LAB BLANK	Units
2-Chloroethyl vinyl ether	14 U D4	6.0 U	µg/Kg
c-1,3-Dichloropropene	2.4 U D4	1.0 U	µg/Kg
4-Methyl-2-pentanone	47 U D4	20 U	µg/Kg
Toluene	2.4 U D4	1.0 U	µg/Kg
t-1,3-Dichloropropene	2.4 U D4	1.0 U	µg/Kg
1,1,2-Trichloroethane	2.4 U D4	1.0 U	µg/Kg
Tetrachloroethene	7.0 U D4	3.0 U	µg/Kg
1,3-Dichloropropane	2.4 U D4	1.0 U	µg/Kg
2-Hexanone	47 U D4	20 U	µg/Kg
Dibromochloromethane	2.4 U D4	1.0 U	µg/Kg
1,2-Dibromoethane	2.4 U D4	1.0 U	µg/Kg
Chlorobenzene	2.4 U D4	1.0 U	µg/Kg
1,1,1,2-Tetrachloroethane	2.4 U D4	1.0 U	µg/Kg
Ethylbenzene	2.4 U D4	1.0 U	µg/Kg
m-Xylene & p-Xylene	4.7 U D4	2.0 U	µg/Kg
o-Xylene	2.4 U D4	1.0 U	µg/Kg
Styrene	2.4 U D4	1.0 U	µg/Kg
Bromoform	2.4 U D4	1.0 U	µg/Kg
Isopropylbenzene	2.4 U D4	1.0 U	µg/Kg
1,1,2,2-Tetrachloroethane	2.4 U D4	1.0 U	µg/Kg
Bromobenzene	2.4 U D4	1.0 U	µg/Kg
1,2,3-Trichlorobenzene	2.4 U D4	1.0 U	µg/Kg
n-Propylbenzene	2.4 U D4	1.0 U	µg/Kg
2-Chlorotoluene	2.4 U D4	1.0 U	µg/Kg
1,3,5-Trimethylbenzene	2.4 U D4	1.0 U	µg/Kg
4-Chlorotoluene	2.4 U D4	1.0 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

D4 = Analyte value determined from a 1:2.29 dilution.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS

	CS-3	LAB BLANK	Units
tert-Butylbenzene	2.4 U D4	1.0 U	µg/Kg
1,2,4-Trimethylbenzene	2.4 U D4	1.0 U	µg/Kg
s-Butylbenzene	2.4 U D4	1.0 U	µg/Kg
1,3-Dichlorobenzene	2.4 U D4	1.0 U	µg/Kg
p-Isopropyltoluene	2.4 U D4	1.0 U	µg/Kg
1,4-Dichlorobenzene	2.4 U D4	1.0 U	µg/Kg
n-Butylbenzene	2.4 U D4	1.0 U	µg/Kg
1,2-Dichlorobenzene	2.4 U D4	1.0 U	µg/Kg
1,2-Dibromo-3-chloropropane	2.0 U D4	1.0 U	µg/Kg
1,2,4-Trichlorobenzene	2.4 U D4	1.0 U	µg/Kg
Hexachlorobutadiene	2.4 U D4	1.0 U	µg/Kg
Naphthalene	2.4 U D4	1.0 U	µg/Kg
1,2,3-Trichloropropane	2.4 U D4	1.0 U	µg/Kg
Bromochloromethane	2.4 U D4	1.0 U	µg/Kg

Surrogate:

	% RECOV	% RECOV	LIMITS
Dibromofluoromethane	89	96	59-143
D8-Toluene	98	108	60-115
Bromofluorobenzene	100	108	55-144
Date Analyzed	04/30/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

D4 = Analyte value determined from a 1:2.29 dilution.

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RESULTS OF ANALYSIS

EPA METHOD 8270 -  
SEMOVOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Acenaphthene	10 U	µg/L
Acenaphthylene	10 U	µg/L
Anthracene	10 U	µg/L
Benzidine	10 U	µg/L
Benzo(a)anthracene	10 U	µg/L
Benzo(b)fluoranthene	10 U	µg/L
Benzo(k)fluoranthene	10 U	µg/L
Benzo(g,h,i)perylene	10 U	µg/L
Benzo(a)pyrene	10 U	µg/L
Benzylbutyl phthalate	10 U	µg/L
Bis(2-chloroethoxy)methane	10 U	µg/L
Bis(2-chloroethyl)ether	10 U	µg/L
Bis(2-chloroisopropyl)ether	10 U	µg/L
Bis(2-ethylhexyl)phthalate	10 U	µg/L
4-Bromophenylphenyl ether	10 U	µg/L
2-Chloronaphthalene	10 U	µg/L
4-Chlorophenyl phenyl ether	10 U	µg/L
Chrysene	10 U	µg/L
Dibenzo(a,h)anthracene	10 U	µg/L
1,2-Dichlorobenzene	10 U	µg/L
1,3-Dichlorobenzene	10 U	µg/L
1,4-Dichlorobenzene	10 U	µg/L
3,3'-Dichlorobenzidine	20 U	µg/L
Diethyl phthalate	10 U	µg/L
Dimethyl phthalate	10 U	µg/L
Di-n-butyl phthalate	10 U	µg/L
Di-n-octyl phthalate	10 U	µg/L
2,4-Dinitrotoluene	10 U	µg/L
2,6-Dinitrotoluene	10 U	µg/L

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMOVOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Fluoranthene	10 U	µg/L
Fluorene	10 U	µg/L
Hexachlorobenzene	10 U	µg/L
Hexachlorobutadiene	10 U	µg/L
Hexachlorocyclopentadiene	10 U	µg/L
Hexachloroethane	10 U	µg/L
Indeno(1,2,3-cd)pyrene	10 U	µg/L
Isophorone	10 U	µg/L
1-Methylnaphthalene	10 U	µg/L
2-Methylnaphthalene	10 U	µg/L
Naphthalene	10 U	µg/L
Nitrobenzene	10 U	µg/L
N-Nitrosodimethylamine	10 U	µg/L
N-Nitrosodi-n-propylamine	10 U	µg/L
N-Nitrosodiphenylamine	10 U	µg/L
Phenanthrene	10 U	µg/L
Pyrene	10 U	µg/L
1,2,4-Trichlorobenzene	10 U	µg/L
Benzyl Alcohol	10 U	µg/L
Benzoic Acid	10 U	µg/L
4-Chloroaniline	10 U	µg/L
2-Nitroaniline	10 U	µg/L
3-Nitroaniline	10 U	µg/L
4-Nitroaniline	10 U	µg/L
Dibenzofuran	10 U	µg/L

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 (cont.) -  
SEMOVOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Pyridine	10 U	µg/L
4-Chloro-3-methylphenol	10 U	µg/L
2-Chlorophenol	10 U	µg/L
2,4-Dichlorophenol	10 U	µg/L
2,4-Dimethylphenol	10 U	µg/L
2,4-Dinitrophenol	50 U	µg/L
2-Methyl-4,6-dinitrophenol	30 U	µg/L
2-Nitrophenol	10 U	µg/L
4-Nitrophenol	10 U	µg/L
Pentachlorophenol	10 U	µg/L
Phenol	10 U	µg/L
2,4,6-Trichlorophenol	10 U	µg/L
2-Methylphenol	10 U	µg/L
3 & 4-Methylphenol	10 U	µg/L
2,4,5-Trichlorophenol	10 U	µg/L

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	70	30-106
2-Fluorobiphenyl	72	38-107
Terphenyl -D14	#186	29-131
Phenol -D5	# 60	12-87
2-Fluorophenol	76	19-115
2,4,6-Tribromophenol	91	35-126
Date Extracted	04/28/00	
Date Analyzed	04/28/00	

# = surrogate recovery outside of laboratory established limits.

NR= Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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EPA METHOD 8270 -  
SEMIVOLATILE ORGANICS

	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Acenaphthene	340 U	330 U	µg/Kg
Acenaphthylene	340 U	330 U	µg/Kg
Anthracene	340 U	330 U	µg/Kg
Benzidine	340 U	330 U	µg/Kg
Benzo(a)anthracene	340 U	330 U	µg/Kg
Benzo(b)fluoranthene	340 U	330 U	µg/Kg
Benzo(k)fluoranthene	340 U	330 U	µg/Kg
Benzo(g,h,i)perylene	340 U	330 U	µg/Kg
Benzo(a)pyrene	340 U	330 U	µg/Kg
Benzylbutyl phthalate	340 U	330 U	µg/Kg
Bis(2-chloroethoxy)methane	340 U	330 U	µg/Kg
Bis(2-chloroethyl)ether	340 U	330 U	µg/Kg
Bis(2-chloroisopropyl)ether	340 U	330 U	µg/Kg
Bis(2-ethylhexyl)phthalate	340 U	330 U	µg/Kg
4-Bromophenylphenyl ether	340 U	330 U	µg/Kg
2-Chloronaphthalene	340 U	330 U	µg/Kg
4-Chlorophenyl phenyl ether	340 U	330 U	µg/Kg
Chrysene	340 U	330 U	µg/Kg
Dibenzo(a,h)anthracene	340 U	330 U	µg/Kg
1,2-Dichlorobenzene	340 U	330 U	µg/Kg
1,3-Dichlorobenzene	340 U	330 U	µg/Kg
1,4-Dichlorobenzene	340 U	330 U	µg/Kg
3,3'-Dichlorobenzidine	680 U	660 U	µg/Kg
Diethyl phthalate	340 U	330 U	µg/Kg
Dimethyl phthalate	340 U	330 U	µg/Kg
Di-n-butyl phthalate	340 U	330 U	µg/Kg
Di-n-octyl phthalate	340 U	330 U	µg/Kg
2,4-Dinitrotoluene	340 U	330 U	µg/Kg
2,6-Dinitrotoluene	340 U	330 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8270 (cont.) -

SEMOVOLATILE ORGANICS

	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Fluoranthene	340 U	330 U	µg/Kg
Fluorene	340 U	330 U	µg/Kg
Hexachlorobenzene	340 U	330 U	µg/Kg
Hexachlorobutadiene	340 U	330 U	µg/Kg
Hexachlorocyclopentadiene	340 U	330 U	µg/Kg
Hexachloroethane	340 U	330 U	µg/Kg
Indeno(1,2,3-cd)pyrene	340 U	330 U	µg/Kg
Isophorone	340 U	330 U	µg/Kg
1-Methylnaphthalene	340 U	330 U	µg/Kg
2-Methylnaphthalene	340 U	330 U	µg/Kg
Naphthalene	340 U	330 U	µg/Kg
Nitrobenzene	340 U	330 U	µg/Kg
N-Nitrosodimethylamine	340 U	330 U	µg/Kg
N-Nitrosodi-n-propylamine	340 U	330 U	µg/Kg
N-Nitrosodiphenylamine	340 U	330 U	µg/Kg
Phenanthrene	340 U	330 U	µg/Kg
Pyrene	340 U	330 U	µg/Kg
1,2,4-Trichlorobenzene	340 U	330 U	µg/Kg
Benzyl Alcohol	340 U	330 U	µg/Kg
Benzoic Acid	340 U	330 U	µg/Kg
4-Chloroaniline	340 U	330 U	µg/Kg
2-Nitroaniline	340 U	330 U	µg/Kg
3-Nitroaniline	340 U	330 U	µg/Kg
4-Nitroaniline	340 U	330 U	µg/Kg
Dibenzofuran	340 U	330 U	µg/Kg

U = Compound was analyzed for but not detected to the level shown.

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### RESULTS OF ANALYSIS

#### EPA METHOD 8270 (cont.) -

#### SEMOVOLATILE ORGANICS

	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Pyridine	340 U	330 U	µg/Kg
4-Chloro-3-methylphenol	340 U	330 U	µg/Kg
2-Chlorophenol	340 U	330 U	µg/Kg
2,4-Dichlorophenol	340 U	330 U	µg/Kg
2,4-Dimethylphenol	340 U	330 U	µg/Kg
2,4-Dinitrophenol	1700 U	1600 U	µg/Kg
2-Methyl-4,6-dinitrophenol	1000 U	990 U	µg/Kg
2-Nitrophenol	340 U	330 U	µg/Kg
4-Nitrophenol	340 U	330 U	µg/Kg
Pentachlorophenol	340 U	330 U	µg/Kg
Phenol	340 U	330 U	µg/Kg
2,4,6-Trichlorophenol	340 U	330 U	µg/Kg
2-Methylphenol	340 U	330 U	µg/Kg
3 & 4-Methylphenol	340 U	330 U	µg/Kg
2,4,5-Trichlorophenol	340 U	330 U	µg/Kg

#### Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Nitrobenzene -D5	70	74	35-112
2-Fluorobiphenyl	73	90	42-111
Terphenyl -D14	101	111	40-124
Phenol -D5	86	90	20-120
2-Fluorophenol	86	93	29-130
2,4,6-Tribromophenol	65	70	35-126
Date Extracted	04/27/00	04/27/00	
Date Analyzed	04/28/00	04/27/00	

#### MISCELLANEOUS

	<u>METHOD</u>	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Percent Solids	SM2540G	97	NR	%
Date Analyzed		04/28/00		

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>LAB BLANK</u>	<u>Units</u>
Arsenic	200.7	0.010 U	mg/L
Date Analyzed		04/26/00	
Barium	200.7	0.10 U	mg/L
Date Analyzed		04/26/00	
Cadmium	200.7	0.0010 U	mg/L
Date Analyzed		04/26/00	
Chromium	200.7	0.010 U	mg/L
Date Analyzed		04/26/00	
Lead	200.7	0.0050 U	mg/L
Date Analyzed		04/26/00	

U = Compound was analyzed for but not detected to the level shown.  
I = Analyte detected; value is between the Method Detection Level (MDL)  
and the Practical Quantitation Level (PQL).

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RESULTS OF ANALYSIS

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>LAB BLANK</u>	<u>Units</u>
Mercury Date Analyzed	245.1	0.00020 U 04/27/00	mg/L
Selenium Date Analyzed	200.7	0.010 U 04/26/00	mg/L
Silver Date Analyzed	200.7	0.010 U 04/26/00	mg/L

<u>EPA METHOD FLPRO - PETROL. RESIDUAL ORG.</u>	<u>LAB BLANK</u>	<u>Units</u>
Hydrocarbons (C8-C40)	0.20 U	mg/L
<u>Surrogate:</u> o-Terphenyl Date Extracted Date Analyzed	% RECOV 76 05/01/00 05/01/00	<u>LIMITS</u> 65-140

U = Compound was analyzed for but not detected to the level shown.

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**RESULTS OF ANALYSIS**

<u>TOTAL METALS</u>	<u>METHOD</u>	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Arsenic	6010	0.90 I	0.50 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Barium	6010	21 U	20 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Cadmium	6010	1.0 U	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Lead	6010	1.0 U	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Mercury	7471	0.010 U	0.010 U	mg/Kg
Date Analyzed		04/28/00	04/28/00	
Selenium	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Silver	6010	2.0 U	2.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	
Chromium	6010	1.0 U	1.0 U	mg/Kg
Date Analyzed		04/26/00	04/26/00	

<u>EPA METHOD FLPRO -</u> <u>PETROL. RESIDUAL ORG.</u>	<u>CS-3</u>	<u>LAB BLANK</u>	<u>Units</u>
Hydrocarbons (C8-C40)	6.8 U	6.6 U	mg/Kg
Surrogate:	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
o-Terphenyl	57	90	51-148
Date Extracted	04/28/00	04/28/00	
Date Analyzed	04/28/00	04/28/00	

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>LAB BLANK</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	2.0 U	µg/L
Chloromethane	1.0 U	1.0 U	µg/L
Vinyl Chloride	1.0 U	1.0 U	µg/L
Bromomethane	2.0 U	2.0 U	µg/L
Chloroethane	2.0 U	2.0 U	µg/L
Trichlorofluoromethane	1.0 U	1.0 U	µg/L
1,1-Dichloroethene	1.0 U	1.0 U	µg/L
Acetone	50 U	50 U	µg/L
Carbon Disulfide	50 U	50 U	µg/L
Methylene Chloride	5.0 U	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
Methyl tert-butyl ether	1.0 U	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	1.0 U	µg/L
2,2-Dichloropropane	2.0 U	2.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	1.0 U	µg/L
2-Butanone	20 U	20 U	µg/L
Chloroform	1.0 U	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	1.0 U	µg/L
Carbon tetrachloride	1.0 U	1.0 U	µg/L
1,1-Dichloropropene	1.0 U	1.0 U	µg/L
Benzene	1.0 U	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	1.0 U	µg/L
Trichloroethene	1.0 U	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	1.0 U	µg/L
Dibromomethane	1.0 U	1.0 U	µg/L
Bromodichloromethane	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>LAB BLANK</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	6.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
4-Methyl-2-pentanone	20 U	20 U	µg/L
Toluene	1.0 U	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	1.0 U	µg/L
Tetrachloroethene	3.0 U	3.0 U	µg/L
1,3-Dichloropropane	1.0 U	1.0 U	µg/L
2-Hexanone	20 U	20 U	µg/L
Dibromochloromethane	1.0 U	1.0 U	µg/L
1,2-Dibromoethane	1.0 U	1.0 U	µg/L
Chlorobenzene	1.0 U	1.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Ethylbenzene	1.0 U	1.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	2.0 U	µg/L
o-Xylene	1.0 U	1.0 U	µg/L
Styrene	1.0 U	1.0 U	µg/L
Bromoform	1.0 U	1.0 U	µg/L
Isopropylbenzene	1.0 U	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	µg/L
Bromobenzene	1.0 U	1.0 U	µg/L
1,2,3-Trichlorobenzene	1.0 U	1.0 U	µg/L
n-Propylbenzene	1.0 U	1.0 U	µg/L
2-Chlorotoluene	1.0 U	1.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	1.0 U	µg/L
4-Chlorotoluene	1.0 U	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>LAB BLANK</u>	<u>Units</u>
tert-Butylbenzene	1.0 U	1.0 U	µg/L
1,2,4-Trimethylbenzene	1.0 U	1.0 U	µg/L
s-Butylbenzene	1.0 U	1.0 U	µg/L
1,3-Dichlorobenzene	1.0 U	1.0 U	µg/L
p-Isopropyltoluene	1.0 U	1.0 U	µg/L
1,4-Dichlorobenzene	1.0 U	1.0 U	µg/L
n-Butylbenzene	1.0 U	1.0 U	µg/L
1,2-Dichlorobenzene	1.0 U	1.0 U	µg/L
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	µg/L
1,2,4-Trichlorobenzene	1.0 U	1.0 U	µg/L
Hexachlorobutadiene	1.0 U	1.0 U	µg/L
Naphthalene	2.0 U	2.0 U	µg/L
1,2,3-Trichloropropane	1.0 U	1.0 U	µg/L
Bromochloromethane	1.0 U	1.0 U	µg/L

Surrogate:

	<u>% RECOV</u>	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	92	92	38-143
D8-Toluene	100	100	78-126
Bromofluorobenzene	92	92	72-132

Date Analyzed

04/30/00

04/30/00

U = Compound was analyzed for but not detected to the level shown.

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## RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	µg/Kg
Chloromethane	1.0 U	µg/Kg
Vinyl Chloride	1.0 U	µg/Kg
Bromomethane	1.0 U	µg/Kg
Chloroethane	1.0 U	µg/Kg
Trichlorofluoromethane	1.0 U	µg/Kg
1,1-Dichloroethene	1.0 U	µg/Kg
Acetone	20 U	µg/Kg
Carbon Disulfide	20 U	µg/Kg
Methylene Chloride	5.0 U	µg/Kg
t-1,2-Dichloroethene	1.0 U	µg/Kg
Methyl tert-butyl ether	1.0 U	µg/Kg
1,1-Dichloroethane	1.0 U	µg/Kg
2,2-Dichloropropane	2.0 U	µg/Kg
c-1,2-Dichloroethene	1.0 U	µg/Kg
2-Butanone	20 U	µg/Kg
Chloroform	1.0 U	µg/Kg
1,1,1-Trichloroethane	1.0 U	µg/Kg
Carbon tetrachloride	1.0 U	µg/Kg
1,1-Dichloropropene	1.0 U	µg/Kg
Benzene	1.0 U	µg/Kg
1,2-Dichloroethane	1.0 U	µg/Kg
Trichloroethene	1.0 U	µg/Kg
1,2-Dichloropropane	1.0 U	µg/Kg
Dibromomethane	1.0 U	µg/Kg
Bromodichloromethane	1.0 U	µg/Kg

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB</u>	<u>BLANK</u>	<u>Units</u>
2-Chloroethyl vinyl ether		6.0 U	µg/Kg
c-1,3-Dichloropropene		1.0 U	µg/Kg
4-Methyl-2-pentanone		20 U	µg/Kg
Toluene		1.0 U	µg/Kg
t-1,3-Dichloropropene		1.0 U	µg/Kg
1,1,2-Trichloroethane		1.0 U	µg/Kg
Tetrachloroethene		3.0 U	µg/Kg
1,3-Dichloropropane		1.0 U	µg/Kg
2-Hexanone		20 U	µg/Kg
Dibromochloromethane		1.0 U	µg/Kg
1,2-Dibromoethane		1.0 U	µg/Kg
Chlorobenzene		1.0 U	µg/Kg
1,1,1,2-Tetrachloroethane		1.0 U	µg/Kg
Ethylbenzene		1.0 U	µg/Kg
m-Xylene & p-Xylene		2.0 U	µg/Kg
o-Xylene		1.0 U	µg/Kg
Styrene		1.0 U	µg/Kg
Bromoform		1.0 U	µg/Kg
Isopropylbenzene		1.0 U	µg/Kg
1,1,2,2-Tetrachloroethane		1.0 U	µg/Kg
Bromobenzene		1.0 U	µg/Kg
1,2,3-Trichlorobenzene		1.0 U	µg/Kg
n-Propylbenzene		1.0 U	µg/Kg
2-Chlorotoluene		1.0 U	µg/Kg
1,3,5-Trimethylbenzene		1.0 U	µg/Kg
4-Chlorotoluene		1.0 U	µg/Kg

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -

VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
tert-Butylbenzene	1.0 U	µg/Kg
1,2,4-Trimethylbenzene	1.0 U	µg/Kg
s-Butylbenzene	1.0 U	µg/Kg
1,3-Dichlorobenzene	1.0 U	µg/Kg
p-Isopropyltoluene	1.0 U	µg/Kg
1,4-Dichlorobenzene	1.0 U	µg/Kg
n-Butylbenzene	1.0 U	µg/Kg
1,2-Dichlorobenzene	1.0 U	µg/Kg
1,2-Dibromo-3-chloropropane	1.0 U	µg/Kg
1,2,4-Trichlorobenzene	1.0 U	µg/Kg
Hexachlorobutadiene	1.0 U	µg/Kg
Naphthalene	1.0 U	µg/Kg
1,2,3-Trichloropropane	1.0 U	µg/Kg
Bromochloromethane	1.0 U	µg/Kg

Surrogate:

	<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane	94	59-143
D8-Toluene	93	60-115
Bromofluorobenzene	94	55-144

Date Analyzed

04/30/00

NR = Analysis not requested for this sample.

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
Dichlorodifluoromethane	2.0 U	µg/L
Chloromethane	1.0 U	µg/L
Vinyl Chloride	1.0 U	µg/L
Bromomethane	2.0 U	µg/L
Chloroethane	2.0 U	µg/L
Trichlorofluoromethane	1.0 U	µg/L
1,1-Dichloroethene	1.0 U	µg/L
Acetone	50 U	µg/L
Carbon Disulfide	50 U	µg/L
Methylene Chloride	5.0 U	µg/L
t-1,2-Dichloroethene	1.0 U	µg/L
Methyl tert-butyl ether	1.0 U	µg/L
1,1-Dichloroethane	1.0 U	µg/L
2,2-Dichloropropane	2.0 U	µg/L
c-1,2-Dichloroethene	1.0 U	µg/L
2-Butanone	20 U	µg/L
Chloroform	1.0 U	µg/L
1,1,1-Trichloroethane	1.0 U	µg/L
Carbon tetrachloride	1.0 U	µg/L
1,1-Dichloropropene	1.0 U	µg/L
Benzene	1.0 U	µg/L
1,2-Dichloroethane	1.0 U	µg/L
Trichloroethene	1.0 U	µg/L
1,2-Dichloropropane	1.0 U	µg/L
Dibromomethane	1.0 U	µg/L
Bromodichloromethane	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB BLANK</u>	<u>Units</u>
2-Chloroethyl vinyl ether	6.0 U	µg/L
c-1,3-Dichloropropene	1.0 U	µg/L
4-Methyl-2-pentanone	20 U	µg/L
Toluene	1.0 U	µg/L
t-1,3-Dichloropropene	1.0 U	µg/L
1,1,2-Trichloroethane	1.0 U	µg/L
Tetrachloroethene	3.0 U	µg/L
1,3-Dichloropropane	1.0 U	µg/L
2-Hexanone	20 U	µg/L
Dibromochloromethane	1.0 U	µg/L
1,2-Dibromoethane	1.0 U	µg/L
Chlorobenzene	1.0 U	µg/L
1,1,1,2-Tetrachloroethane	1.0 U	µg/L
Ethylbenzene	1.0 U	µg/L
m-Xylene & p-Xylene	2.0 U	µg/L
o-Xylene	1.0 U	µg/L
Styrene	1.0 U	µg/L
Bromoform	1.0 U	µg/L
Isopropylbenzene	1.0 U	µg/L
1,1,2,2-Tetrachloroethane	1.0 U	µg/L
Bromobenzene	1.0 U	µg/L
1,2,3-Trichlorobenzene	1.0 U	µg/L
n-Propylbenzene	1.0 U	µg/L
2-Chlorotoluene	1.0 U	µg/L
1,3,5-Trimethylbenzene	1.0 U	µg/L
4-Chlorotoluene	1.0 U	µg/L

U = Compound was analyzed for but not detected to the level shown.

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RESULTS OF ANALYSIS

EPA METHOD 8260 (cont.) -  
VOLATILE ORGANICS

	<u>LAB</u>	<u>BLANK</u>	<u>Units</u>
tert-Butylbenzene	1.0	U	µg/L
1,2,4-Trimethylbenzene	1.0	U	µg/L
s-Butylbenzene	1.0	U	µg/L
1,3-Dichlorobenzene	1.0	U	µg/L
p-Isopropyltoluene	1.0	U	µg/L
1,4-Dichlorobenzene	1.0	U	µg/L
n-Butylbenzene	1.0	U	µg/L
1,2-Dichlorobenzene	1.0	U	µg/L
1,2-Dibromo-3-chloropropane	1.0	U	µg/L
1,2,4-Trichlorobenzene	1.0	U	µg/L
Hexachlorobutadiene	1.0	U	µg/L
Naphthalene	2.0	U	µg/L
1,2,3-Trichloropropane	1.0	U	µg/L
Bromochloromethane	1.0	U	µg/L
 <u>Surrogate:</u>		<u>% RECOV</u>	<u>LIMITS</u>
Dibromofluoromethane		92	38-143
D8-Toluene		100	78-126
Bromofluorobenzene		92	72-132
Date Analyzed		04/30/00	

U = Compound was analyzed for but not detected to the level shown.

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QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY</u> <u>MS/MSD/LCS</u>	<u>ACCEPT</u> <u>LIMITS</u>	<u>% RPD</u> <u>MS/MSD</u>	<u>ACCEPT</u> <u>LIMITS</u>
<u>EPA Method 8260</u>				
1,1-Dichloroethene	102/ 99/ 80	45-167	3	30
Benzene	96/102/ 93	60-130	6	23
Trichloroethene	101/102/ 97	50-122	<1	10
Toluene	99/101/ 98	57-136	2	12
Chlorobenzene	104/101/ 99	59-126	3	11

Environmental Conservation Laboratories Comprehensive QA Plan #910190

< = Less Than

MS = Matrix Spike

MSD = Matrix Spike Duplicate

LCS = Laboratory Control Standard

RPD = Relative Percent Difference

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QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY MS/MSD/LCS</u>	<u>ACCEPT LIMITS</u>	<u>% RPD MS/MSD</u>	<u>ACCEPT LIMITS</u>
<u>EPA Method 8270</u>				
Phenol	50/ 50/ 59	29-102	<1	44
2-Chlorophenol	68/ 69/ 79	58-124	1	41
1,4-Dichlorobenzene	47/ 47/ 50	0-127	<1	43
N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
1,2,4-Trichlorobenzene	58/ 57/ 58	18-129	2	43
4-Chloro-3-methylphenol	84/ 89/ 88	75-126	6	22
Acenaphthene	70/ 75/ 72	63-122	7	28
4-Nitrophenol	26/ 30/ 28	0-168	14	52
2,4-Dinitrotoluene	92/ 94/ 99	81-151	2	21
Pentachlorophenol	94/103/ 80	27-154	9	42
Pyrene	120/128/128	54-146	6	32

Environmental Conservation Laboratories Comprehensive QA Plan #910190

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QUALITY CONTROL DATA

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<u>EPA Method 8270</u>				
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QUALITY CONTROL DATA

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QUALITY CONTROL DATA

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QUALITY CONTROL DATA

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QUALITY CONTROL DATA

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QUALITY CONTROL DATA

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QUALITY CONTROL DATA

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<u>EPA Method 8270</u>				
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N-Nitrosodi-N-Propylamine	55/ 53/ 64	72-118	4	22
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4-Chloro-3-Methylphenol	84/ 89/ 88	75-126	6	22
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### QUALITY CONTROL DATA

<u>Parameter</u>	<u>% RECOVERY</u> <u>MS/MSD/LCS</u>	<u>ACCEPT</u> <u>LIMITS</u>	<u>% RPD</u> <u>MS/MSD</u>	<u>ACCEPT</u> <u>LIMITS</u>
<u>EPA Method 8270</u>				
Phenol	89/ 79/ 88	48-111	12	38
2-Chlorophenol	93/ 84/ 91	42-110	10	38
1,4-Dichlorobenzene	75/ 67/ 79	42-110	11	33
N-Nitrosodi-N-Propylamine	65/ 56/ 65	41-118	15	29
1,2,4-Trichlorobenzene	76/ 73/ 84	45-111	4	20
4-Chloro-3-methylphenol	76/ 74/ 76	49-120	3	38
Acenaphthene	78/ 77/ 80	38-135	1	29
4-Nitrophenol	34/ 31/ 32	44-169	9	68
2,4-Dinitrotoluene	82/ 73/ 87	42-155	12	32
Pentachlorophenol	76/ 71/ 67	0-157	7	41
Pyrene	95/ 92/102	40-116	3	37
<u>MISCELLANEOUS</u>				
Percent Solids, SM2540G	NA/ NA/ NA	-	NA	
<u>TOTAL METALS</u>				
Arsenic, 200.7	102/104/102	64-126	2	12
Arsenic, 6010	95/ 92/100	53-153	3	22
Barium, 200.7	97/ 98/ 99	74-119	1	11
Barium, 6010	97/ 96/100	70-120	1	16
Cadmium, 200.7	95/ 97/ 99	68-121	2	12
Cadmium, 6010	92/ 91/ 98	59-130	1	24
Chromium, 200.7	96/ 98/ 98	73-120	2	10
Chromium, 6010	92/ 89/ 99	57-135	3	24
Lead, 200.7	98/ 99/100	68-126	1	19
Lead, 6010	102/101/101	63-128	<1	26

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QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS
Mercury, 245.1	113/111/112	70-136	2	12
Mercury, 7471	115/135/118	71-138	16	13
Selenium, 200.7	80/ 83/100	65-129	4	10
Selenium, 6010	87/ 86/ 95	60-121	1	14
Silver, 200.7	101/103/102	69-121	2	12
Silver, 6010	97/ 95/101	69-118	2	10
<u>PETROL. RESIDUAL ORG.</u>				
Hydrocarbons (C8-C40)	119/120/ 89	51-163	<1	27
<u>PETROL. RESIDUAL ORG.</u>				
Hydrocarbons (C8-C40)	80/ 68/ 74	62-204	16	25

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Orlando, Florida 32824-8529  
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way  
Cary, North Carolina 27513  
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

## CHAIN OF CUSTODY RECORD

PROJECT REFERENCE <i>Mayeret Final Station</i>		PROJECT NO. <i>2007</i>	PO. NUMBER <i>ER1 #2007</i>	MATRIX TYPE <i>Soil, water, sediment, liquid, air, sludge</i>	REQUIRED ANALYSIS <i>B260, C174, B270, C174, FT-200, Total organic carbons</i>	PAGE <i>1</i> OF <i>1</i>						
PROJECT LOC. <i>Jacksonville</i>	SAMPLER(S) NAME <i>Richard Morandy</i>	PHONE <i>(904) 296-2200</i>	FAX <i>(904) 297-3489</i>									
CLIENT NAME <i>Environmental Recovery Inc Me Chuck Nevin</i>		CLIENT PROJECT MANAGER <i>Chuck Nevin</i>				<input checked="" type="checkbox"/> STANDARD REPORT DELIVERY						
CLIENT ADDRESS (CITY, STATE, ZIP) <i>87 Levy Road, Atlantic Beach, FLA 32233</i>						<input type="checkbox"/> EXPEDITED REPORT DELIVERY (surcharge)						
SAMPLE		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED		REMARKS						
STATION #	DATE	TIME	GRAB	COMP.								
1 #1	4/24/00	13:45	X	MW-15 S	X	X X X X	Samples collected by Richard Morandy					
2 #2	4/24/00	14:15	X	MW-03 S	X	X X X X						
3 #3	4/24/00	14:45	X	MW-13 S	X	X X X X						
4												
5 #4	4/25/00	11:40	X	TMW-1	X	X X X X	Sample containers sent in poly bags and placed on wet ice for transport. RM					
6 #5	4/25/00	12:20	X	TMW-2	X	X X X X						
7 #6	4/25/00	12:45	X	TMW-3	X	X X X X						
8												
9 #7	4/25/00	09:15	X	CS-1	X	X X X X	Samples hand-delivered to ENCO, Jax 4/25/00 (RM)					
#8	4/25/00	10:00	X	CS-2	X	X X X X						
#9	4/25/00	10:30	X	CS-3	X	X X X X						
12												
13							Sample cards sealed w/ custody seals for transport					
14												
SAMPLE KIT PREPARED BY: <input type="checkbox"/> JACKSONVILLE <input type="checkbox"/> ORLANDO			DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME		
RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME		
RECEIVED BY (SIGNATURE)			DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME		
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Beth Scherzer</i> <input type="checkbox"/> Jacksonville <input type="checkbox"/> Orlando			DATE <i>4/25/00</i>	TIME <i>4:55 PM</i>	CUSTODY INTACT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	ENCO LOG NO. <i>JAX10968</i>	REMARKS Each sample kit contains: Groundwater: 2x4oz vials - HCl (B260) 1x 1000 ml glass - unpl (B270) 2x 1000 ml glass - H2SO4 (C174 + Pro) 1x 500ml poly thick (Total organic carbons)				Soil: 3x4oz Glass C260, F174, 3x 5gm Erlen C260/5035	

**ATTACHMENT B**

**Well Sampling Field Logs**



## Well Sampling Log

Date: 4/24/00Time: 13:00Project Number: Limited ClosureSite Location: Airport Naval Station Fuel Depot - Tanks 99, 100, 101Well I.D. MW-15 S Depth of well (from TOC) 14.80 ft Depth to water 8.28 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 2 in. Well Construction \_\_\_\_\_ ft. in. slotted screen Casing Material PVCWell Volume 1.0 gal Well Vol = 6.52 /H × 1 /1<sup>2</sup> × 0.163 = 1.0 gal/vol

H = 14.80 /TD - 8.28 /DTW = 6.52 ft

Well Type: upgradient downgradient hot spot \_\_\_\_\_ other

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

## Purge Information:

Purging eqpt: Teflon BailerPurge rate: 0.5 gal/min.Purge Start Time: 13:28Well Recharge Rate: 6000

Volume	Gallons	pH	Conductivity	Temp. (°C)	Time	Other
1						
2						
3						
4						
5						

*PURGED WELL 5 VOLUMES*

## Field Parameters

Purge Stop Time: 13:38Total gallons purged: 5.0

## Sample Information:

Sample Collection Time: 13:45Sample Collected Using: Teflon Bailer

Order of Sampling	1	2	3	4	5	6
Sample Parameters	8260	8270	FI-PRO	Total (5) per sample		
Sample Containers	2x40 mL vials	1x1000 mL glass (amber)	2x1000 mL glass (amber)	1x500 mL glass (amber)		
pH of Preserved Samples	HCl <2	NaP	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: None Odor noted: Yes Color: milky Turbidity: Moderate

Comments: \_\_\_\_\_

## Field Instrument Information:

Instruments Used: N/ACalibration: pH 4.0 7.0 10.0 Conductivity: \_\_\_\_\_ Time/Date: \_\_\_\_\_Ambient Conditions: Warm (80°F) overcast w/0 8-12 westField Personnel (name/title): Richard Moriarty, Environmental ScientistSample delivered to laboratory by: Randy - Deliveries*R. Moriarty*

esa

## Well Sampling Log

Date: 4/24/00

Time: 14:00

Project Number: Liaison Closure

Site Location: Naval Station Naval Depot - Tanks 99, 100, 101

Well I.D. MW-03S Depth of well (from TOC) 15.30 ft Depth to water 10.22 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 2 in. Well Construction ft. in. slotted screen Casing Material PVC

$$\text{Well Volume } \underline{\underline{0.83(41.0) \text{ gal}}} \quad \text{Well Vol} = \underline{\underline{8,081/\text{H} \times 1/\text{l}^2 \times 0.163}} = \underline{\underline{0.83 \text{ gal/vol}}}$$

$$H = \frac{15.30}{TD} - \frac{10.22}{DTW} = 5.08 \text{ ft}$$

Well Type:  upgradient  downgradient  hot spot \_\_\_\_\_ other \_\_\_\_\_

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

#### Purge Information:

Purge eqpt: Teflon BA.1.v

Purge rate: 0.5 gal/min.

Purge Start Time: 14:03

Well Recharge Rate: 6000

Purge Stop Time: 14:13

Total gallons purged: 5.0

Sample Information:

Sample Collection Time: 14:15

Sample Collected Using: Teflon Beaker

Order of Sampling	1	2	3	4	5	6
Sample Parameters	8260	8270	FT-Pro	Total (83) acetone/hex		
Sample Containers	2x40 mL vials	1x1000 mL glass (amber)	2x1000 mL Eppel (clear)	1x500 mL poly		
pH of Preserved Samples	HCl <2	WNP	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: None Odor noted: No Color: Mostly Clean Turbidity: Low

**Comments:** \_\_\_\_\_

Field Instrument Information:

Instruments Used: N/A

Calibration: pH 4.0 7.0 10.0 Conductivity: Time/Date:

Calibration: pH 4.9 7.0 10.0 Conductivity: \_\_\_\_\_ Time/Date: \_\_\_\_\_  
Ambient Conditions: Normal (80°F) overcast wind 8-12 west

Field Personnel (name/title): Richard Mee-Art, Research Scientist

Sample delivered to laboratory by: Hand - Deliverer

Ruth May



## Well Sampling Log

Date: 4/24/00Time: 14:25Project Number: Linton ClosureSite Location: Empire Naval Station Fuel Depot - Tanks 99, 100, 101Well I.D. MW-133 Depth of well (from TOC) 15.17 ft Depth to water 9.40 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 2 in. Well Construction \_\_\_\_\_ ft. in. slotted screen Casing Material PVCWell Volume 0.94(91.0) gal Well Vol = 5.77 /H × 1 /r<sup>2</sup> × 0.163 = 0.94 gal/vol

$$H = 15.17 \text{ TD} - 9.40 \text{ DTW} = 5.77 \text{ ft}$$

Well Type: upgradient downgradient hot spot other

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

## Purge Information:

Purging eqpt: Teflon BailePurge rate: 0.5 gal/min.Purge Start Time: 14:32Well Recharge Rate: 5.03

Volume	Gallons	pH	Conductivity	Temp. (°C)	Time	Other
1						
2						
3						
4						
5						

## Field Parameters

Purge Stop Time: 14:42Total gallons purged: 5.0

## Sample Information:

Sample Collection Time: 14:45Sample Collected Using: Teflon Baile

Order of Sampling	1	2	3	4	5	6
Sample Parameters	8260	8270	FI-PRO	Total (83) preservative		
Sample Containers	2x 90 mL vials	1x 1000 mL glass (amber)	2x 1000 mL ether (clear)	1x 500 mL poly		
pH of Preserved Samples	HCl <2	NP	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: None Odor noted: No Color: Mostly clear Turbidity: not turbid

Comments: \_\_\_\_\_

## Field Instrument Information:

Instruments Used: N/ACalibration: pH 4.0 7.0 10.0 Conductivity: \_\_\_\_\_ Time/Date: \_\_\_\_\_Ambient Conditions: Warm (80°F) overcast w/wd 8-12 westField Personnel (name/title): Richard M. Arney /Ph.D. Research ScientistSample delivered to laboratory by: David - Deliverer R. J. Arney

esa

TMWd

## Well Sampling Log

Date: 4/25/00

Time: 11:00

Project Number: Lm.109 Closure

Site Location: Naval Station Fuel Depot - Tanks 99, 100, 101

Well I.D. TNW 11 Depth of well (from TOC) 10,60 ft Depth to water 8.67 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 2 in. Well Construction ft. in. slotted screen Casing Material 2½

$$\text{Well Volume } 0.32 \text{ gal} \quad \text{Well Vol=} \frac{1.93}{1/H} \times \frac{1}{1^2 \times 0.163} = 0.31 \text{ gal/vol}$$

$$H = \frac{10.60}{\text{TD}} - \frac{8.67}{\text{DTW}} = 1.93 \text{ ft}$$

$$H = \frac{10.60}{TD} - \frac{8.67}{DTW} = 1.93 \text{ ft}$$

Well Type:  upgradient  downgradient  hot spot \_\_\_\_\_ other \_\_\_\_\_

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

Purge Information: 101 6 6

Purge eqpt: Pneumatic Pump Purge rate: 0.2 gal/min.

Well Recharge Rate: 6000

Purge Stop Time: 11:30

Total gallons purged: 4

#### Sample Information:

Sample Collection Time: 11:40

Sample Collected Using: Teflon Beaker

Order of Sampling	1	2	3	4 Total (2) Preserves	5	6
Sample Parameters	8260	8270	Fl-Pro	8264 mls		
Sample Containers	2x 40ml vials	1x 1000 ml Glass (Amber)	2x 1000 ml Edder (Amber)	1x 500 ml Poly		
pH of Preserved Samples	HCl <2	NaP	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: None Odor noted: yes Color: grey-clearing Turbidity: Moderate

Comments: Installed TMW-1 @ 0930 - south of Thk #101, near piping

### Field Instrument Information:

Instruments Used: N/A

Calibration: pH 4.0 \_\_\_\_\_ 7.0 \_\_\_\_\_ 10.0 \_\_\_\_\_ Conductivity: \_\_\_\_\_ Time/Date: \_\_\_\_\_

Ambient Conditions: Warm ( $80^{\circ}\text{F}$ ) overcast wind 8-12 west

Field Personnel (name/title): Richard Morantz / Environmental Scientist

Sample delivered to laboratory by: Hajid - Deliverer

Peter J. Mancuso



- MW - C  
Well Sampling Log

Date: 4/05/00

Times

Project Number: Limited Closure

Site Location: Naval Air Station Fuel Depot - Tanks #9, 100, 101

Well I.D. TMW-5 Depth of well (from TOC) 10.60 ft Depth to water 8.52 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 2 in. Well Construction ft. in. slotted screen Casing Material 2c

$$\text{Well Volume } 0.34 \text{ gal} \quad \text{Well Vol} = \frac{2.08}{H} \times \frac{1}{r^2} \times 0.163 = 0.34 \text{ gal/vol}$$

$$H = \frac{10.60}{TD} - \frac{85^2}{DTW} = \underline{\underline{2.08}} \text{ ft}$$

Well Type:  upgradient  downgradient  hot spot \_\_\_\_\_ other \_\_\_\_\_

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

Purge Information: 05/11/17 ED 2013

Purging eqpt: scrubber Purge rate: 0.2 gal/min.

Purge Start Time: 12:07 Well Recharge Rate: 6000

Purge Stop Time: 12:16 Total gallons purged: 36

Sample Information: 17-2

Sample Collection Time: 12:20 Sample Collected Using: Teflon Beaker

Order of Sampling	1	2	3	4	5	6
Sample Parameters	8260	8270	Fl-Pro	total (2) per sample		
Sample Containers	2x10ml vials	1x1000l glass (amber)	2x1000ml Erlenmeyer	1x500l Poly		
pH of Preserved Samples	HCl <2	Unp	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: none Odor noted: Slight Rotten Color: Yellow Turbidity: Medium

Product noted: None Color noted: Black Parity: Normal  
Comments: I am -2 with the new one

Comments: ~~for review~~ - out of review now piping  
Field Instrument Information:

**Instruments Used:** *(Handwritten signature)*

Calibration: pH 4.0 7.0 10.0 Conductivity: Time/Date:

Ambient Conditions: WARM (80°F.) overcast wind 8-12 west

Field Personnel (name/title): Richard Meekins Research Scientist

Sample delivered to laboratory by: Hand - Detectors

esa

## Well Sampling Log

Date: 4/25/00

Time: 1230

Project Number:Limited Closure

Site Location: Naval Station Everett Fuel Depot - Tanks 99, 100, 101

Well I.D. JMW-3 Depth of well (from TOC) 10.60 ft Depth to water 8.90 ft

Relative to Mean Sea Level: Top of Casing (TOC) \_\_\_\_\_ ft Static Water Level \_\_\_\_\_ ft

Well Diameter 7-1/2 in. Well Construction ft. in. slotted screen Casing Material 2 1/2

$$\text{Well Volume } 0.21 \text{ (10.3) gal} \quad \text{Well Vol} = \frac{1.70}{H} \times \frac{\pi r^2}{4} \times 0.163 = 0.21 \text{ gal/vol}$$

$$\text{Well Volume } \underline{\underline{0.21}} \text{ gal} \quad \text{Well Vol} = \frac{1.70}{H} \times \frac{r^2 \times 0.163}{1} = \underline{\underline{0.21}} \text{ gal/vol}$$

$$H = \frac{10.60}{TD} - \frac{8.90}{DTW} = \underline{\underline{1.70}} \text{ ft}$$

Well Type:  upgradient  downgradient  hot spot \_\_\_\_\_ other \_\_\_\_\_

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_

Purge Information

Purging eqpt: \_\_\_\_\_

Purge Start Time: 12:34

Purge rate: 0.2 gal/min.

Purge Start Time: 12:34 Well Recharge Rate: 8000

Volume	Gallons	pH	Conductivity	Temp. (°C)	Time	Other
1	0.3					
2	0.6					
3	0.9					
4	1.2					
5	1.5					
Field Parameters						-

Purge Stop Time: 12:45

Total gallons purged: 1,5

### Sample Information:

Sample Collection Time: 12:45

Sample Collected Using: Teflon Bag

Order of Sampling	1	2	3	4 total (3) polymer	5	6
Sample Parameters	8260	8270	FI-PRO			
Sample Containers	2x 40 mL vials	1x 1000 mL glass (amber)	2x 1000 mL Erlenmeyer	1x 500 mL Poly		
pH of Preserved Samples	HCl <2	Unp	H <sub>2</sub> SO <sub>4</sub> <2	HNO <sub>3</sub> <2		
Additional Preservative						

Product noted: None Odor noted: No, Color: Mostly clear Turbidity: Low

Comments: installs Thru -3 @ Midpoint Between Tech #100 + 101

#### Field Instrument Information:

Instruments Used: *N/A*

Calibration: pH 4.0 7.0 10.0 Conductivity: Time/Date:

Ambient Conditions: Wet (80°?) overcast w/w 0 8-12 west

Field Personnel (name/title): Richard Morgan Environmental Scientist

Sample delivered to laboratory by: Hand - Delivery

Ram Mohan